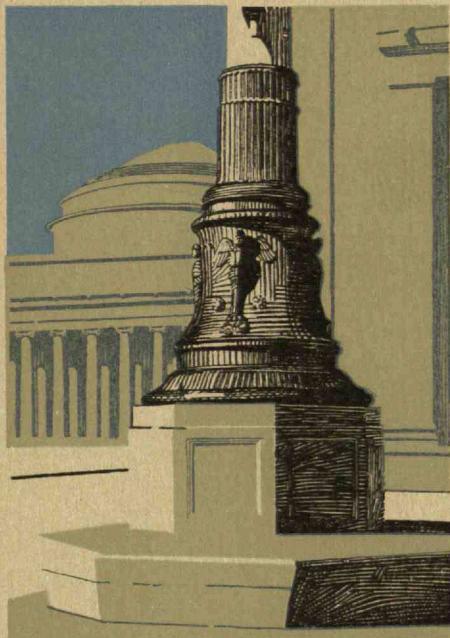


THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS
INSTITUTE OF TECHNOLOGY



APRIL
1924

PUBLISHED BY THE ALUMNI ASSOCIATION

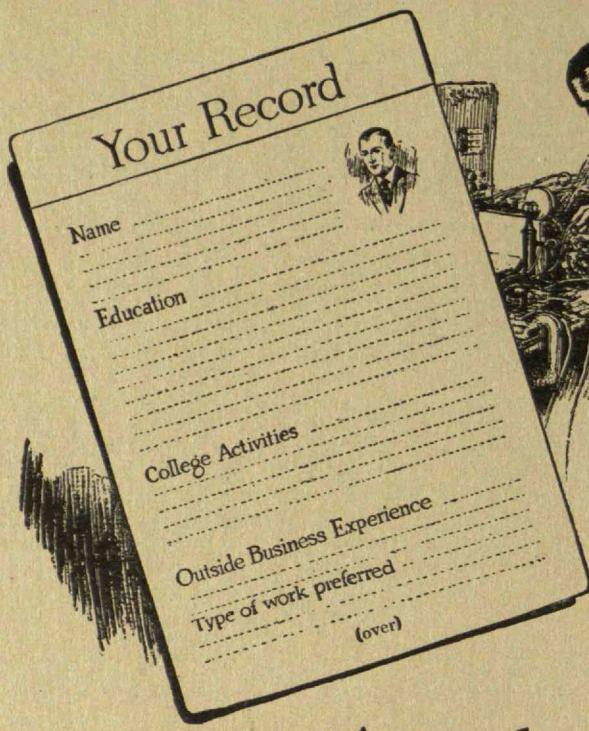
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Another call for candidates

In this season of try-outs, seniors will do well to respond to the call for candidates which progressive business organizations are making.

The visit of the various company representatives offers a mutual opportunity. It puts you in position to judge whether a particular company offers sufficient scope to your ability and ambition. The representative can judge, after conversing with you and studying your record, whether you would be well placed in his company.

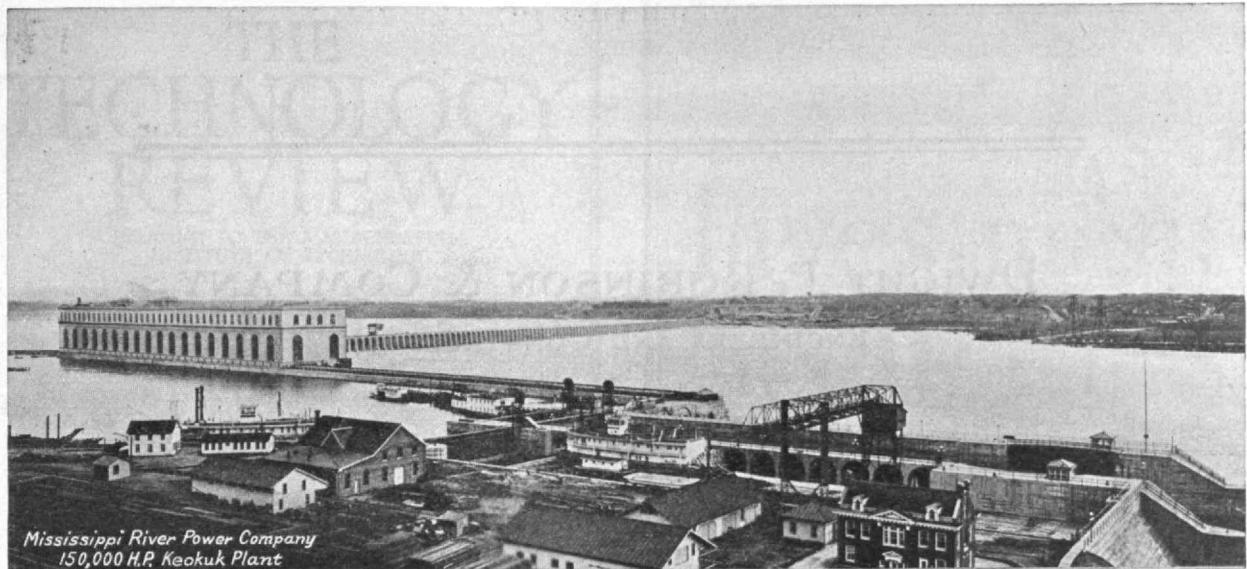
Do not ignore the invitation to these interviews. Do not be one of those—and they are many—who next Fall will write to the larger companies, "At the time your representative visited my college I did not think that I was interested in the work of your company and so did not meet him".

Men who are earnest in wanting to make the team usually respond to first call.

Western Electric Company

This advertisement is one of a series in student publications. It may remind alumni of their opportunity to help the undergraduate, by suggestion and advice, to get more out of his four years.

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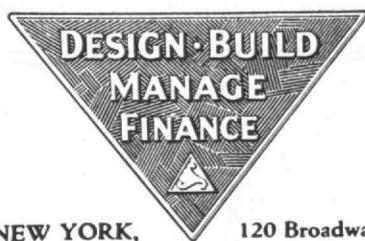
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THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS
INSTITUTE OF TECHNOLOGY

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H. E. LOBDELL, '17 Editor
E. F. HODGINS, '22 Managing Editor
R. E. ROGERS Contributing Editor

PUBLISHED BY THE ALUMNI ASSOCIATION

George L. Gilmore, '90, President
Arthur T. Hopkins, '97, Secretary-Treasurer
Orville B. Denison, '11, Executive Secretary

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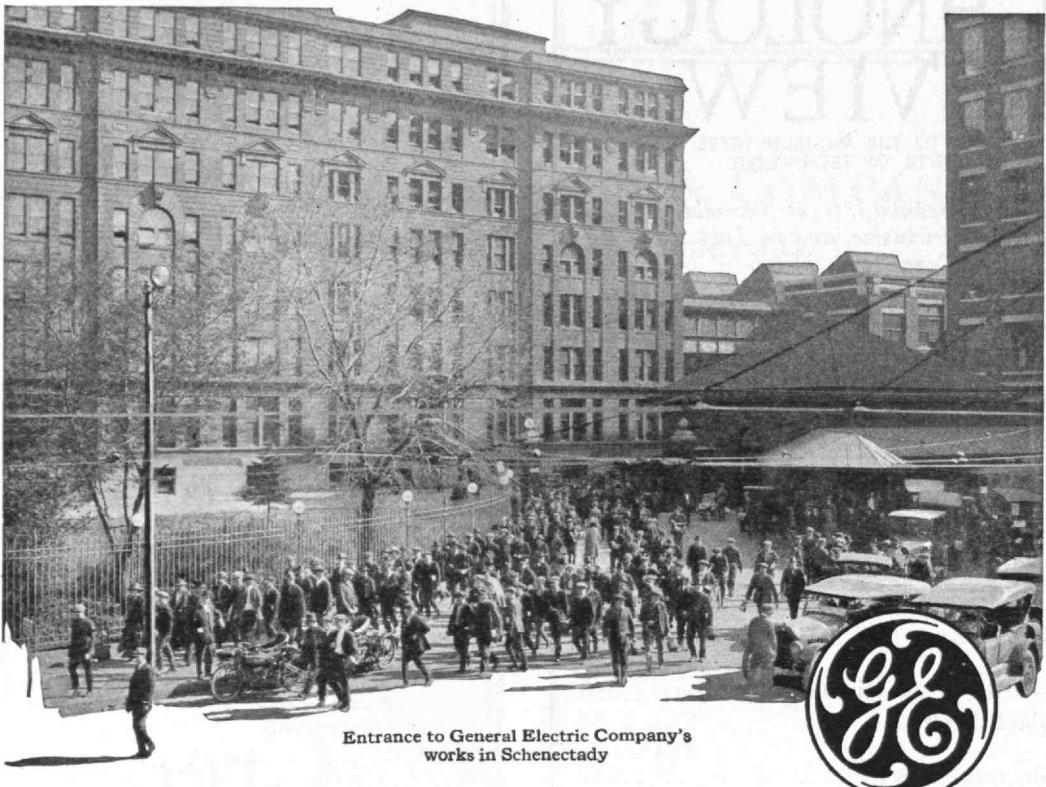
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Time was when war called the ambitious and offered life's great rewards. But the captains and the kings passed. The enduring conquests of our times are being made in industry.

Through the wide doors of General Electric plants and offices an army of 100,000 men and women moves every day. Each of them, looking back over the road, can say:

“Things worth while are being done in my lifetime, and *I am with the doers.*”

GENERAL ELECTRIC

THE TECHNOLOGY REVIEW

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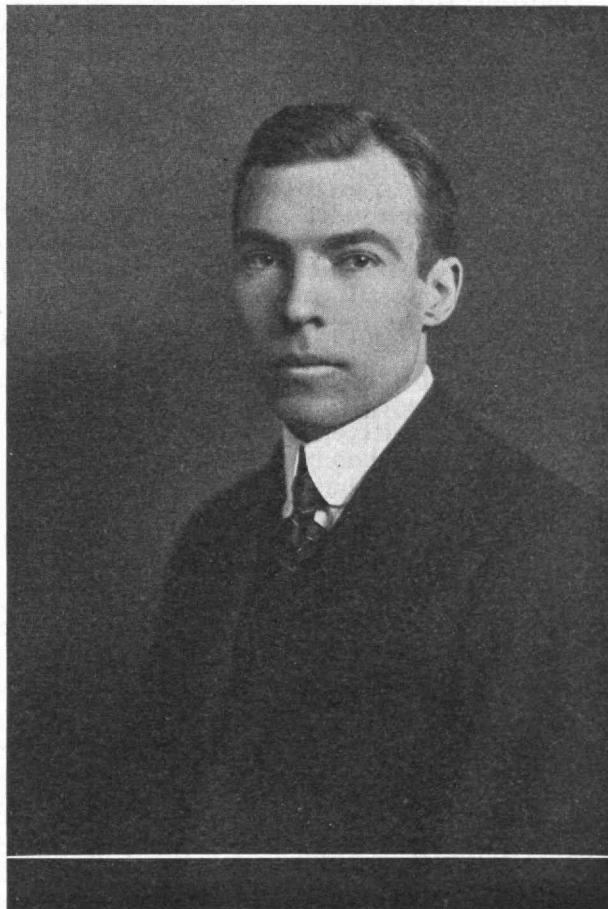
The Past Month

PROVISION for retiring allowances and death benefits for members of the Institute's Staff seems now to be close to actuality. A Faculty Committee consisting of Professors H. W. Tyler, '84, C. W. Doten, and D. C. Jackson, which has studied the problem for the past three years, reported recently proposing a plan which according to President Stratton is now receiving the serious consideration of the Institute's Executive Committee. The Faculty approved it last May by an overwhelming majority. The study was occasioned by the fact that the Carnegie Pension System includes as beneficiaries only those who were active members of the staff on or before November 17, 1915. Briefly, the Committee's proposal calls for a contribution by an instructor or professor of 5% of his yearly salary. To this sum, the Institute adds an equal amount. The total thus realized will make up a pension and an insurance fund which the Institute will use to provide for insurance covering death or disability while in service and to provide also for a retiring annuity at the ages of 65 or 70, which will equal \$2400 to \$3000 depending

upon the age and rank of the individual. The plan at present likewise contemplates that those who leave the Institute prior to the retirement age shall be repaid their own contributions plus the accumulated interest.

IT seems probable that the year 1925 will witness another Five-year All-Technology Reunion. A committee some time ago appointed by George L. Gilmore, '90, President of the Alumni Association, and consisting of Wallace C. Brackett, '95, Chairman, Thomas B. Booth, '95, and L. S. Goodman, '08, reported at the last meeting of the Alumni Council that the results of a questionnaire it had sent out showed a sentiment overwhelmingly in favor of the Reunion. Further, said the average alumnus as this committee determined him, the Reunion should be held in June about graduation time. It should last two or three days, either at the beginning or ending of a week, should be essentially social and informal, should avoid stiff, formal functions, professional or technical meetings and elaborate or spectacular features. There should be class dinners and one large group dinner, the features of which, said the committee, "should be good food, good music and entertainment and the minimum of speech making, if any." One day should be allotted for a general outing. Class stunts should not be relied upon for entertainment, if held at all.

The committee recommended a reunion laid out in accord with these ideas at the last meeting of the Council. The Council accepted the recommendation and authorized the Chair to appoint a committee to take charge. All that remains now is to hold the Reunion.



WALTER T. SPALDING, '10

To whom goes much credit for the highly successful radio dinner held in New York on March 7. See p. 317ff.

PLANS for group endowment life insurance similar to that undertaken last year for the first time by the Class of 1923 have been completed by this year's seniors. A referendum vote to the class showed a practically unanimous approval of another organized drive for funds, as a result of which the Institute should receive in 1949 a sum approximating \$125,000. The plan as finally adopted calls for an initial payment of about \$10 from each member of the senior class, of which about \$9 will be applied to the policy and of which about \$1 will go to establish a contingent fund to take care of policies which otherwise might lapse. Yearly payments of about \$9 will then be continued for twenty-five years, thus making available in round numbers the sum of \$125,000 to be paid to the Institute upon the Twenty-fifth Anniversary of the class.

If future classes continue to lend their support to this financial idea, the Institute will be assured of a yearly income equivalent to that which might be derived from a capital fund of two and one-half million dollars, calculated at 5%.

THEODORE H. DILLON, since 1920 Professor of Electrical Engineering at the Institute, and since 1922 Director of the Summer Session, has resigned his Institute professorship to become Professor of Public Utility Management in the Harvard Business School, beginning next September. Professor Dillon is a graduate of West Point and the Army Engineering School. During 1908-09 he was Assistant to the Director of Public Works in Cuba. He was later Director of a number of river and harbor improvements, Superintendent of the Gatun Locks and Director of the Panama Railroad. During 1918-19 he was Colonel commanding the 37th Engineers and Assistant Chief Engineer of the First Army. He was later awarded the Distinguished Service Medal and placed on duty with the American Peace Commission. No announcement has been made of the appointment of his successor at the Institute.

THE TECHNOLOGY CLUBS ASSOCIATED MEET IN DETROIT

See also page 331.

On May 19, 20 and 21 a meeting of The Technology Clubs Associated will be held at Detroit, Mich. The Review calls the attention of its readers to the following program put forth by the Committee in charge for the three full days which are planned:

Monday, May 19

Morning—Registration with headquarters at Tuller Hotel.

Afternoon—General Sight-seeing trips around the city.

Evening—Smoker.

Tuesday, May 20

Trips to Industrial plants and points of engineering interest.

Evening—Business. Discussions of subjects of interest to Technology.

Wednesday, May 21

Boat excursion on Detroit River.

Evening—Banquet. At this dinner, Dr. Stratton and other prominent Technology men will speak.

The program is still subject to minor change, but is settled in its essentials as indicated above.

Notices of this meeting have been mailed to all Alumni with the annual ballots. The Executive Committee, of which W. R. Kales, '92, is Chairman, has made its arrangements on a large scale. It has arranged among other things for reduced railroad fares, providing that a total of at least two hundred and fifty Alumni and guests attend the meeting from out-of-town, and obtain the necessary certificates. Further specifications of interest will appear in the May issue of The Review.

PROFESSOR THOMAS A. JAGGAR, Jr., former head of the Department of Geology at the Institute, and for some time now director of the volcano observatories in Hawaii, delivered two lectures at the Institute on February 26 and 27 of extreme interest to geologist and layman alike.

Professor Jaggar spoke first specifically of the earthquake which all but destroyed Tokyo and Yokohama last September. In the second lecture he dealt more generally with the science of volcanology. "Americans, particularly those in the East," said Professor Jaggar, "are very likely to wake up some day and find that unexpected earthquakes are not confined to the far corners of the earth." The danger in Atlantic Coast towns, he said, was not that a tremendous shock will destroy every building, but that a small shock in a congested city might disrupt its entire organization. Fire could then do just as much damage as it did in Tokyo. Professor Jaggar dwelt at some length in imagining the uproar which a very small earthquake, not at all impossible, would cause in a city like New York.

His lecture on the Tokyo earthquake he illustrated with motion pictures taken within one-half an hour after the last shocks had occurred. In

his later lecture, Professor Jaggar mentioned the possibility of forecasting location and time of earthquakes with such accuracy that a small quake could be made a calm affair. To a certain extent, prediction has been possible in the past. Professor Jaggar has known of many important disturbances within the last fifteen years in time to be on the spot when they occurred. He was sent as an official observer to Tokyo last September.

"LOWER and better flying" is to be the slogan of the Army Air Service for the next year, according to Major General Mason T. Patrick, Chief of the Air Service, who addressed over five hundred students of

the Institute on February 28. The present necessities of aeronautics, according to General Patrick, are the developing, standardization and perfection of planes. Although he mentioned the possibility that the airplane of the future might travel at a rate of over three hundred miles an hour, General Patrick pointed out that certain assets, such as lifting power and slow landing speed must be sacrificed, and that it will be to balance the various desirable qualities of the Army aircraft that the Army fliers of the future will devote their time. The meeting which General Patrick addressed was under the auspices of the Aeronautical Engineering Society.

APPLICATIONS from Technology men for membership in the New University Club have jumped from 175 to 303 during the past month, according to a statement recently made by Donald D. McKay of the Executive Committee. This figure places Technology as second on the list of twelve leading universities with quotas to fill. Harvard is first with 422, Dartmouth is third with 264, Amherst fourth with 111, Tufts fifth with 103, and Boston University sixth with only one less than that. Yale, Brown, Bowdoin, Boston College, Williams and Cornell complete the list in the order named. Alumni from ninety-five other colleges and universities have applied in addition to these.

DR. MURRAY P. HORWOOD, '16, Ph.D., Assistant Professor of Biology and Public Health at the Institute, went on leave of absence for three months at the beginning of the third term to assist the Research Division of the American Child Health Association in its health survey, now undertaken, of eighty-six cities

in the United States. He was assigned to cities in New England and began his work in mid-March. The Association expects by its survey to obtain authentic information on the condition of child health in the United States.

Dr. Horwood has made numerous public health surveys for private organizations in Taunton and Quincy, Mass., Glen Ridge, N. J., seven cities in Oklahoma and several in Indiana. He directed the tuberculosis survey made in Philadelphia two years ago. He is the author of the volume, "Public Health Surveys," and has written several articles on the subject of public health.

COLLEGE editors and business managers from all over the United States will foregather at Walker Memorial on April 10, 11 and 12 to attend the 1924 Grand Convention of Pi Delta Epsilon, national journalistic fraternity. Delegates are expected from all but a few of the thirty-odd chapters, some coming from as far as the Pacific Coast. Most of the meetings will be held in the Walker Memorial Building, the M. I. T. Chapter acting as the host.

Thomas Arkle Clark, Dean of Men at the University of Illinois, is Grand President and will attend. Two Technology men are members of the Grand Council of the fraternity: J. C. Patty, '22, Grand Treasurer and H. E. Lobdell, '17, Grand Vice-President. In conjunction with the meetings the Committee in Charge of Arrangements is preparing an exhibit of college newspapers, annuals, comics, and other periodicals to be opened to the public in the Trophy Room of Walker Memorial.

PROPOSED CHANGES IN BY-LAWS

In accordance with Article VIII of the By-Laws, thirty days' notice is hereby given of proposed action by the Alumni Council at its April meeting on the following changes in the By-Laws:

PRESENT

ARTICLE VI

Dues

Section 1. [Revised 1913.] The annual dues for regular members shall be \$3 and those for Sustaining Members shall be \$10 or more, including subscription to The Technology Review, and honorary members shall be exempt from payment of dues.

ARTICLE VIII

Amendments

The By-Laws may be amended at any time by a majority vote of the full membership of the Council, provided thirty days' notice of such amendment has been given through publication in The Review.

PROPOSED

ARTICLE VI

Dues

Section 1. [Revised 1924.] The annual dues for regular members shall be \$3 until the class has been graduated five years, after which the dues for regular members shall be \$5, and those for Sustaining Members shall be \$10 or more, including subscription to The Technology Review, and honorary members shall be exempt from payment of dues.

ARTICLE VIII

Amendments

The By-Laws may be amended at any time by a majority vote of the full membership of the Council, provided thirty days' notice of such amendment has been given through publication in The Review, or by mail to the full membership of the Council.

George L. Gilmore, President.

ALEX RICE McKIM, '85, Inspector of Docks and Dams for the New York Public Service Commission, Professor H. K. Barrows, '95, of the Institute and Charles T. Main, '76, Consulting Engineer of Boston, were the three members of a committee appointed by the Vermont Public Service Commission to investigate and report on the sufficiency of the great earth dam which has just been completed at Whittingham on the Deerfield River. The dam will hold back five billion cubic feet of water and is said to be the largest structure of its kind in the world. The investigation was ordered apparently because of a desire to assure the public of Springfield, Mass., and other places along the Connecticut River, into which the Deerfield empties, that the new structure has ample ability to withstand the pressure back of it. The dam was built by the New England Power Company to furnish electrical energy to various New England points.

ONE more Aldred lecture is now in the past. On February 29, Dr. F. G. Cottrell, Director of the Fixed Nitrogen Research Laboratory of the United States Department of Agriculture, spoke on the fixation of nitrogen. The lecture was a slight departure from the preceding ones, in that it was delivered by a scientist rather than an engineer, and dealt almost exclusively with the peculiarities of several industrial chemical reactions. Dr. Cottrell emphasized the extent to which industry is dependent upon laboratory investigation for success.

THE one real blizzard of the winter came in the past month too late to faze the speeding engineers of the Class of '93 dormitory. Snow and cold weather, if any remains for the future, hold no terrors for them now. Only a few beautifying processes remain before the exterior of the building is complete. Inside, the plumbers are at work setting the fixtures, and the plasterers have reached the fifth floor. In the next issue of The Review, it will probably be possible to report final completion of the building which will be available for occupancy as soon thereafter as the Institute authorities see fit.

ABOLITION of Tech Night, hinted at in the preceding issue of The Review, is now a fact. The recommendation of the joint committee of Faculty, Alumni and Undergraduates, appointed to suggest a correction for its evils, was recently adopted by the Institute Committee and automatically becomes law among the Undergraduates. The only way these committees could think of improving Tech Night was by doing away with it altogether. It is gone. An institution unique but hurtful disappears and is superseded by no more rowdy an affair than a tea dance. Field Day remains, by and large, unaltered.

DR. PHILIP FRANKLIN, Benjamin Peirce Instructor in Mathematics at Harvard, has been chosen to fill the place left vacant at Technology by the death of Dr. Joseph Lipka in January. Dr. Franklin will come to the Institute next fall. He is a graduate of the College of the City of New York, where he received the degree of Bachelor of Arts. Later, he was Instructor of Mathematics at Princeton University and obtained there his degree of Doctor of Philosophy. He came to Harvard in 1922.

Editorial Comment

When the next directory of the Alumni Association appears, discovery will be made (if the proof reader has done her grim work correctly) of a yawning gap where once was listed the Committee on

The Technology Review. Deceased met death through a complication of diseases, the more important ones having been pernicious anemia, mitral insufficiency and a general Tired Feeling. Interment was private.

By discharging the Review Committee "with thanks" the Executive Committee would seem to have gone on record with the assertion of belief that The Review is now of age. It is henceforth responsible to no subsidiary group, but directly to the Executive Committee itself, in company with such unquestionable adults as the Executive Secretary.

The abolition of the old Committee was more a gesture of freedom than a muscular breaking of any fetters. The Committee on The Review never, since we came to know it, bothered a living soul. During the present editorship it held two meetings, at neither of which could it command a quorum. Solitude and freedom from interruption seemed to be its cravings. When The Review editors now and again sought counsel from it, it stirred itself, and said with the slight querulousness of a philosopher telling his child what made the sky so blue, that the editors might do as they pleased, if they would only go outdoors and play and not annoy father again during the evening. It was this attitude that made the Committee unique and made responsibility to it so comfortable. If its personnel had been different, if it had sought to specify in assertive communiques how news should be treated, how pages should be arranged, how half-tones should be anchored and how many points editorials should be leaded, the editing of The Review would have been a much less happy task.

Doubtless the Executive Committee in officially consigning the Review Committee to the limbo in which it had unofficially dwelt with such content was doing no more than acting upon the sound principle that the effective work of any institution is inversely proportional to the number of committees contained within it. There can be little question on the wisdom of such an action. The Alumni Association suffers the com-

mon ailment of being committee-ridden. Where there are committees there is always the convenient escape-mechanism of referring a puzzling question to one of them and then forgetting all about it. The Committee blithely does likewise until the day before its annual report is due, when it composes a few smoothly non-committal paragraphs and rests from its labors.

Thus it may be argued that the abolition of the gentle, kindly, innocuous Review Committee is, after all, a step in the right direction. Yet for all that it should not pass unnoticed. To the thanks with which its consignors dispatched it, The Review asks leave to express genuine thanks for its own—thanks for the precious privilege of having been granted the opportunity for self-reliance.

The Under-graduate Millions By its action of a few weeks ago in re-adopting the essentials of the Endowment Insurance Plan first operated by the Seniors of last year, the Class of 1924 has given another demonstration of the proposition that money can be raised for educational purposes without alarms, excursions, flourishes or ruffles.

The plan of writing Endowment Insurance policies on numbers of grouped individuals for the benefit of a university or other institution is not a new idea in actuarial circles, but to Technology it was quite new when the Class of 1923, almost entirely on its own initiative, introduced it last spring. The plan received the hearty support of the class, and the participating fraction was sufficiently large to argue every success for it. Figures indicated, and still indicate, that from the Class of 1923, Technology should receive, in 1948, a sum approximating \$125,000.

But if the Endowment Plan is to be truly a success, the receipts from it must be so regular as to be classifiable as income, and not as mere sporadic additions to capital funds. That is the reason why the present action of the Class of 1924 is so highly to be praised. It is the first move made toward the establishment of that permanence which the plan, of itself, does not contain, but which must be supplied to it from without by regular, voluntary action, if the plan is to succeed. Two links, at least, are needed to make the beginnings of a chain. Classes from 1925 onward to an indefinite future figure have now a precedent reinforced to guide them. Direction has been added to energy.

Few can fail to find significant the recent inclination in the colleges to raise money by a plan which utilizes the mental, not the vocal, faculties. At Technology, the Endowment Insurance Plan, explicitly, and the Swope idea, implicitly, argue that if funds are to come from Alumni for institutional support, it is better to make a bargain with men while they are closely bound together and organized as an undergraduate class, than to wait until they scatter everywhere and then, with no better bond than a postage stamp between

Alumnus and Alma Mater, to appeal for voluntary "contributions."

The Swope Idea is too new, still, even for experiment, but the Insurance Plan, within the space of a year, has loomed to a large importance in the Institute's financial affairs. Credit cannot be too generously given to the sober and far-sighted young men who, without fuss and feathers, have capitalized their resources for the benefit of the Institute. If their successors keep up their good work, (and there is every reason to believe they will) the Institute will find available a steady yearly income equivalent to the full total which it now receives from the Endowment Fund so strenuously raised from the Alumni-at-large in 1920.

Telling the World Probably some smart young Alumnus will before long break Ike Litchfield's heart by referring to the Telephone Dinner of 1916 as "quaint." Quaint? Look here, young man, the time isn't long past since the telephone was the marvel of the age! When your father was in college they didn't even have telephones in the dormitories, let alone telephone dinners! The idea! If young folks nowadays had a little more respect for . . .

Never mind. It's no use. The telephone dinner is quaint, now, and we might just as well admit it without a struggle. It became quaint rather suddenly during the month of March. To be precise, it became quaint at 10:30 p.m., on March 7, when the speeches incidental to the Annual New York Technology dinner were broadcast by radio seven thousand miles for the benefit of any of the 50,000,000 owners of sets within that radius who cared to listen. There are distances, there are numbers, for the modern statistics-loving youth to conjure with. Let him make the most of them.

If anything had gone wrong with the plans of that already historic dinner in March, the Telephone Dinner would have maintained its primacy. Nothing did. From start to finish, the record of that New York feast is irreproachable. There was no flaw in arrangements, no hitch in continuity.

Of course, an iconoclast might ask, "What was there ever in an after-dinner speech that merited the attention of 50,000,000 souls, or was worthy of the herculean efforts made to spread it?" A direct answer would be difficult, yet it cannot be gainsaid that by the evening, Technology profited largely through an attention gained with justice and with dignity. It is to graduates of Technology and like schools that the present age owes the carefree independence it has gained over the restrictions of time and space and matter. It does no harm now and then to light up a truth by a stunt.

Yes, and more than that: portions of Europe, never before enlightened, have heard it proclaimed loudly and in unison that Tech is Hell.

George Eastman—Advertiser

An appreciation of Technology's benefactor: here reprinted by editorial permission

Sometimes—not often—you will see him walking through the streets of Rochester; a slim, nervous man of medium height, grey haired, bespectacled. Behind the round lenses of those spectacles there twinkle two of the most wonderful blue eyes into which I have ever gazed. An impenetrable blue; eyes of great depth, wise old eyes. Eyes that see much, miss nothing. It has not been George Eastman's habit to miss many things out of life.

He enters the huge theater that bears his name. The tireless eyes cast round-about them. The corner of an act-drop on the great stage is hanging a few miserable inches too low. Eastman catches the slip. The stage manager gets a reminder; not unkind, yet quite insistent. Nothing escapes him. A scrap of paper on the floor, a typographical error in a program — those impenetrable blue eyes of wisdom know no time-clock.

The great theater is Eastman. Eastman is the theater. The Rochesterian who is bursting with pride to show the fine new things in his town leads you to the Eastman Theater as soon as he meets you at the train. It is the town's chief boast, its most magnificent gesture. At the very earliest opportunity you will be brought within its portals. You do not have to wait long. The Eastman Theater, being an immensely democratic institution, opens its doors to the public each day of the year. Its symphony orchestra, already well advanced in the process of the making, plays three times each day—in connection with motion-pictures of the better grade. This is Eastman's own idea, for Rochester, at any rate; it has been tried successfully in New York for several seasons past. Himself passionately fond of good music, he learned long ago that you cannot take the average American community and thrust it into a sincere appreciation of the thing. Knowing this, Eastman sought a more subtle plan. He would get audiences into his great theater — his munificent gift to the city of Rochester — to see Charlie Chaplin and Doug Fairbanks and all the rest of them, and then, willy-nilly, these audiences would be compelled to listen to high-grade music.

There were plenty of scoffers when George Eastman first broached his plan; plenty of wise owls to opine that the thing "just couldn't be done." But the fact remains that the thing has been done — and done

By EDWARD HUNGERFORD
Writing in Printers' Ink Monthly

successfully—for more than a year past. Nearly two million Rochesterians came to the house in the first

twelve months of its existence, paid remarkably low prices for their admission and enabled the enterprise to clear every one of its sizable operating expenses, which was almost more than its donor, himself, had thought would be possible. For its support, Rochester

this year has its recompense in the enlarging of the scope of the enterprise, so that in the coming winter there will be plenty of real symphony concerts in the auditorium by Rochester's own orchestra (recently increased for this purpose to eighty-eight pieces), as well as the paving of the way for the establishment of a resident grand opera company in the town within the comparatively near future.

To the stranger in the town the first appeal of the Eastman Theater is the appeal that it makes to his eye. A really huge structure of enduring stone, it is not alone the third largest theater in the United States (with its 3,400 seats) but it is one of the most beautiful opera houses that has ever been built on either side of the Atlantic. This is a large statement. Facts bear it out, however. For the Eastman Theater of Rochester is much more than a theater: it is a veritable jewel-box of the arts—great mural paintings by such men as Maxfield Parrish and Ezra Winter and Barry Faulkner vie upon its walls and in its corridors with the choicest art treasures of

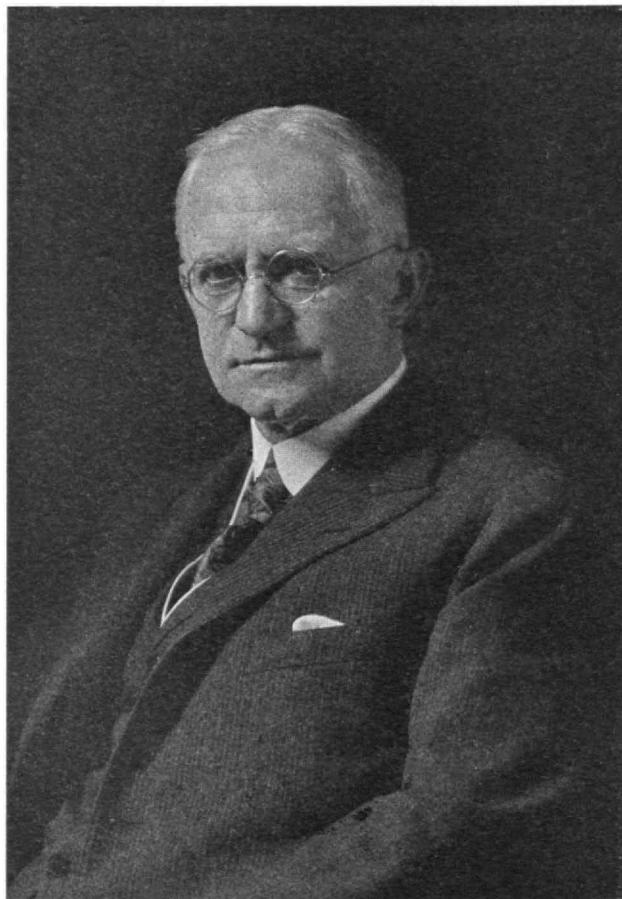
both Europe and America. It is a school—nearly 1,500 young men and young women are studying music under its walls, under the tutelage of a faculty of eighty teachers and the general supervision of the University of Rochester which holds the entire property—theater and all—in trust for its namesake city.

"Isn't it—wonderful?" ejaculates your Rochesterian, almost before you have had full time to drink in the full architectural beauties of the thing.

"What built it?" you might ask. And with a vast deal of truth he *might* quickly reply:

"Advertising built this great playhouse of our new America, advertising plus the reliability of the product offered."

In the World War a number of things were credited with having finally won the conflict for the Allies. It depended quite largely upon who was talking to you. Ships won the war. The Service of Supplies won the



"... A SLIM, NERVOUS MAN OF MEDIUM HEIGHT, GREY HAIR, BEСПECTACLED."

We think of George Eastman as Technology's benefactor. Mr. Hungerford's article names his many other beneficences

war. Morale won the war. Men won the war. Every one of these was right and all were right. And so in Rochester you can say in full truth not only that advertising built the marvelous Eastman Theater, but that keen judgment and great sagacity built it; that responsibility — responsibility to the patrons of an American business concern as well as to its workers and to its stockholders — built it. And in every instance you will be right.

Yet the fact remains that George Eastman was a good advertiser almost as he was a good business man — and that, too, in the days when advertising was looked upon with a dubious eye by a great many men who then considered themselves pretty good as captains of industry. Eastman will tell you, himself, that advertising was one of the cornerstones of the foundations of his fortune.

The story of Kodak is one of the Aladdin-like romances of modern business. It is the wavering story of great perplexities, of defeats — and of superb triumphs. That story is not to be told in all of its detail here; neither is that of George Eastman, who invented Kodak, both the clever advertising name and the camera which it bespoke to the world. It is enough for this moment to say that in 1878 Eastman began tinkering with a camera; that two years later he had launched a small business ship which sought to sell raw materials to professional photographers.

Eastman, himself an enthusiastic amateur photographer, almost a pioneer in the art, leaped mentally far beyond the comparatively petty business of being a mere supply house to the professional trade. His keen mind foresaw the day when amateurs, such as he, would be multiplied a thousand fold; when just ordinary folk, but with an inherent love of beauty, would be going afield to make for themselves a record of the loveliness that God had placed around about them.

Foreseeing, he planned to translate his vision into concrete possibility. He knew that not one man nor one woman in ten thousand possessed the ability to make such a record by the touch of the crayon or of the paint-brush. But an American armed with cameras — small, practical, comparatively inexpensive cameras — going afield to make its record of beauty — that was the vision which confronted George Eastman.

And the Kodak was its answer. The Kodak, like a great many other American inventions, was a product of evolution. It came as the first really great step in a long line of achievements on Eastman's part. The first of these, the dry plate, he made commercially practicable at about the time of its discovery in Great Britain. It resulted in the scrapping of the dark tent, the nitrate bath and the other rather fearful burdens that were placed upon the backs of the pioneers in amateur photography. But glass plates, whether wet or dry, being heavy, the first real steps toward the Kodak itself were when the negative film was supported upon paper, instead of upon glass. These first steps were delicate ones. Only folk who were fairly expert in photographic processes could handle the earliest roll films. So Eastman, in the first real stages of his broad appeal to the amateur all the way across the land evolved a method by which that amateur sent in his films, camera and all, to the Rochester plant. Here the cameras were carefully unloaded and the films developed and printed; the cameras being reloaded before they were returned by express to their owners.

This was more than manufacturing; this was a service. And as a service, it was a thing that could be advertised.

Eastman, whose advertising experience up to that time had been confined to rather matter-of-fact announcements of his photographic materials in the trade papers, cast about him for the proper method of advertising this new service.

Upon his desk there was placed one day a manuscript which sought to describe it. It was somewhat wordy. It told in some detail how, if you would press the button, finish the roll of film and forward the camera to Rochester, the Eastman company there would do the rest. At almost a single glance he took in the entire long paragraph of the manuscript. He reached for his stubby pencil. With it he "ringed" two phrases of the paragraph and connected them with a pencil line. He turned to his assistant who stood beside him.

"That reads better," said he. Then read aloud:

"You press the button; we do the rest."

"You press the button; we do the rest." . . . You bought a Kodak, exposed a seemingly endless roll of film in it, and sent the camera, film and all — as we have just described — up to George Eastman at Rochester, with ten dollars enclosed, and in an incredibly short space of time you had your Kodak back — reloaded and ready for fresh conquests — with all your films and a print from each. The ten dollars was then a fixed price, even though the Kodaks ranged in size, from one which was $2\frac{1}{2}$ inches in diameter and which carried a 100-exposure film, up to the 4-inch by 5-inch machine which held but 48 exposures.

To thoroughly popularize this new toy with an America which was just beginning to acquire wealth and leisure, as well as a real appreciation of the out-of-doors, Eastman launched himself upon a campaign of real advertising. Modestly he disclaims himself as an advertiser; gives credit for the great development made by Kodak along these lines to Lewis B. Jones who for thirty years has had sole direction of the advertising policies of the company. Be this as it may, the fact remains that it was Eastman who gave Jones at all times the support and encouragement of the company's great advertising program.

Jones, acting under Eastman's suggestion, used the great slogan, "You press the button; we do the rest," relentlessly and untiringly, yet at the same time gave attention to the use of pictures in the company's advertising. Kodak had then, and still has, vast faith in the possibility of the picture upon the human mind.

So, many of the first Kodak advertisements were chiefly pictorial. And, although for years this policy, still continuing, has been expressed entirely in photographic illustration, in those days at the beginning of the '90's halftone reproduction was so much in its infancy that Eastman had his first recourse to line drawings.

Bridge was then very new indeed. A Kodak advertisement suggested that a young man invited to play, might bring his camera and make a snapshot of the party. The outdoor uses of America's new toy were the most stressed, however. A man was shown photographing a boy fishing. In another, a man riding upon a high-wheeled bicycle was Kodaking a boat drawn up by the shore.

One of these picture-advertisements showed a man taking a photograph of a small child. And it is illustrative of the extreme care with which these were prepared that the man was shown upon his knees in order that his camera-lens might come into a direct line with the eyes of the child. . . . George Eastman is nothing, if not thorough, always.

There were always a few lines of text — not many — to accompany these pictures; generally in the form of a short imaginary dialogue between the characters they showed. But the picture was the chief reliance of the advertisement.

About 90 per cent of the Eastman company's copy sold ideas. There was comparatively little description of the mechanism of the cameras. He felt, and rightly, that the chief thing to be cultivated was the desire for amateur photography, which, once created, would make the selling of the camera, itself, a matter of comparative ease. And how soundly he built upon that idea the results, themselves, have shown. Have I not said that the Eastman Theater was built upon the foundation of business sagacity, as well as upon any other thing?

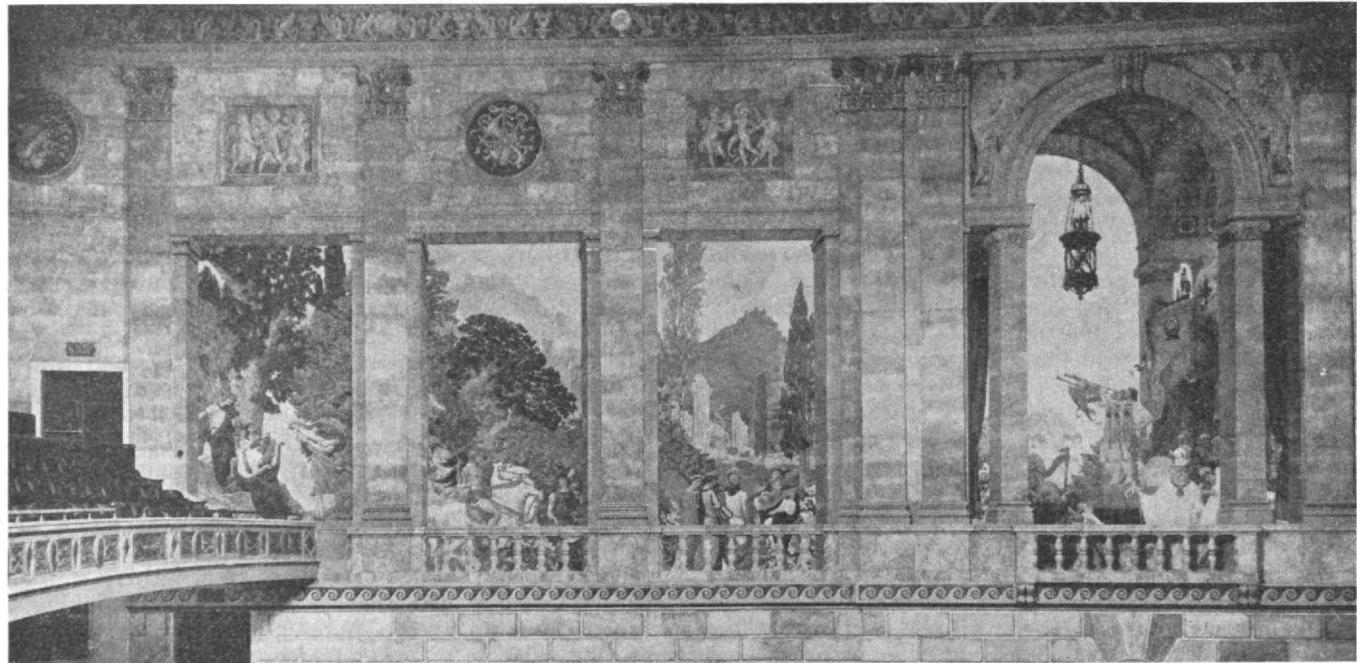
"You press the button; we do the rest," has long since been consigned to limbo; even though a slightly modified form of it — "you turn the crank; we do the rest" — has recently been revived to phrase the possibilities of the motion-picture camera for amateurs. In a comparatively short time George Eastman had so developed the practical end of amateur photography that no longer was it necessary to send the camera to the Rochester factory; daylight loading had made it possible to remove and replace the films under almost every condition outdoors or indoors. In fact, it was no longer necessary even to send the films away for development. Another Eastman device permitted the crudest of amateurs to accomplish satisfactory development by himself . . . Kodak still serves its patrons by developing and printing their negatives, not only at Rochester but in its various branches all over the world. Yet, large as this feature of its business is, it represents but a comparatively small proportion of the great volume of the whole.

So has advertising built through the sheer quiet

genius of a quiet and most unassuming man, not only for Rochester a great theater and music school, a medical school and a hospital, and a modern dental dispensary, in addition to many, many other minor beneficences, but also for Cambridge, the magnificent new buildings of the Massachusetts Institute of Technology, and for the man himself great comfort in the later years of his life. A bachelor, he has never shared the loneliness of many of his kind. For one thing he has always been too busy to be lonely. And for another — and a better one — he has had far too keen an interest in the finer things of life. He loves beauty, which means that in turn he loves pictures, music, flowers. His house is filled with splendid paintings; the works of many of the best masters being represented. Likewise, his rooms are kept filled with cut flowers. His greenhouses are among the most extensive in Rochester, which is saying much in a town that has always gone in rather heavily for horticulture.

The Eastman Theater is but the larger expression of the man's love of good music and of the generous impulses which have moved him to share his large opportunities for its enjoyment with his less fortunate fellow townsmen. It was not enough that when Eastman built his huge residence upon its chief street a dozen years or more ago, he should install within it a fine pipe organ for his own delectation. He long ago adopted the hospitable habit of bidding Rochesterians, of almost every class and type, to his great house on Sunday evenings; to recitals, not alone upon the organ but by the Kilbourn string quartette, of which he has been the founder and the patron.

The keenness of mind and the hard-headed business sagacity that made George Eastman a good advertiser do not come amiss when George Eastman endeavors to be — in the largest possible sense — a good citizen within his community.



AN INTERIOR VIEW OF THE EASTMAN THEATER
Murals by Barry Faulkner, Ezra Winter and Maxfield Parrish decorate it

Old World Bits by an Itinerant Architect

*Louis C. Rosenberg receives merited appreciation in Arts and Decoration,
by whose permission this article is here reprinted*

In this age of the ubiquitous picture post card and the roaming camera, there are many who have thought that the gentle art of sketching might well be in danger of merging from a gentle art to a lost art.

Why go to all the inconvenience of sketching (supposing you possess the skill) when a few rolls of film will get all the bits you want, and get them far more quickly?

Fortunately there are, even in this rapidly changing world, a few artists left, and fortunately some of them prefer to record their travels by the "antiquated" method of the sketch book. The artist can get more out of a given subject and put more into it than is sometimes possible for any lens.

The man with the sketch book may be more selective. He can emphasize this or that and suppress or minimize this or that—and the artist does not have to compromise on the matter of viewpoint because of the sun. He can make his picture from exactly the point he chooses, and concentrate the interest of his picture on exactly the point he chooses.

These sketches in France and in Tunis, by Louis Conrad Rosenberg, recall at once that there was a time when the artist's sketch book was more in evidence than it is today. Before he merged his whole art into lithography, Joseph Pennell made charming travel sketches all over the world, and at that same time Ernest Peixotto filled the magazines with his travel memoranda in sketch form. The names and delightful work, also, of Vernon Howe Bailey and Earl Hopper come to mind, and we recall that it was only a year or so ago that Mr. Bailey came back with a rich collection of pencil sketches of picturesque Spain, which were at once acquired by Hispanic Museum in New York.

Louis Conrad Rosenberg is of American and Swedish parentage. He studied architecture at the Massachusetts Institute of Technology, where he was awarded the traveling fellowship in 1914. The World War prevented him from going at that time, but it is apparent that he subsequently made up for the delay.

In the kind of sketches which are this artist's forte, a great deal more than mere accuracy is essential. This sort of drawing cannot be done without an intimate knowledge of architecture and a sensitive feeling for all its minor incidents. To draw with this delightful simplicity and directness the artist must know construction; he must have the architect's sixth sense for voids and solids, for light and shade, he must know when and how to emphasize a projection or a profile.

Of the very essence of these drawings is the spontaneity which makes them seem as though they had been easy to do. Certainly they must have been very pleasant to do, and

By MATLACK PRICE

Illustrated by Mr. Rosenberg's sketches

the ease of their manner is deceptive—as anyone may find for himself if he decides to go out some afternoon and do a dozen or so.

They are amazingly facile, but not, in this respect, artificial or meretricious. Above all, the man knows his architecture, and he knows how to record it unerringly.

With his sense for the picturesque, and with his very evident mastery of line, we should feel reasonably safe in predicting an exceptional future for Mr. Rosenberg as an etcher. In each of these sketches there is much of the feeling of a good etching. Much of their charm is linear, but there is more than this in them. There is the etcher's essential feeling for quality of line, and for subtle emphasis and accentuation.

The sketch of a street intersection in St. Malo—rue de Chartres—is primarily a study in profile. The composition of roofs and chimneys is so picturesquely taken that there is no offense to the eye in the riot of lettering which covers the buildings. This seems, indeed, to have more the effect of a somewhat unusual and quaint pattern.

One of the best sketches reproduced here, is that of the Old House and Shop in the Rue Froide, Limoges. Here there is much of the quality of the etching, and also a good display of strong and very knowing draughtsmanship.

Slightly different in technique, but no less interesting, is the "Porte de Bruxelles, Malines," an example of the utmost assurance on the part of the artist. A drawing as fine as that of the old house at Limoges is the drawing of the old half-timbered façade at Lisieux.



ST. MALO
House in the Rue de Chartres



An old corner of Paris—Cour du Dragon

These two could be called the best of the group reproduced here, judged on their technical merits of sketch technique.

The technique of sketching is worthy of far more study and appreciation than are usually accorded to it. To the trained eye, a sketch reveals an artist's true ability in greater measure than his finished work—it is a revelation of his draughtsmanship and of his sense of selection, and it should equally as well be a revelation of the essentials of the subject. Very few artists have pursued the technique of the sketch sufficiently far to master it; they have too often abandoned it as a thing pertaining to student days, thus depriving the more appreciative portion of the public of a great deal of material for aesthetic enjoyment, and themselves of a continuous source of pleasurable practice.

Perhaps magazines share, to some degree, in the blame for the decline of sketching as an art. Sketches are very seldom published. This may result from the workings of the well-known "vicious circle," with editors saying that they do not publish sketches because there aren't any good ones to publish, and artists saying there is no incentive to make sketches because they couldn't get them published after they were made.

The architectural schools do not encourage sketching nearly so much as they should, and do not stress the teaching of sketching. Quite aside from the charm, beauty or value as records which sketches may possess,



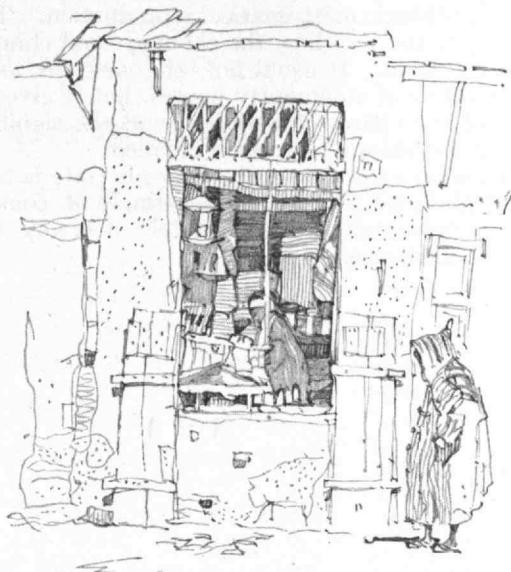
The gateway bazaar at Zouk-el-Trouk, Tunis

it is indisputably true that the making of sketches gives a student more of the real feeling of architecture than any other exercise he may engage himself in. What, in its essential elements, is architecture? It is mass, composition, profile, detail and color. By no other way than the making of a sketch of a building, or of some portion of it, is it possible to learn so much about that building, or to appreciate more intelligently its subtleties?

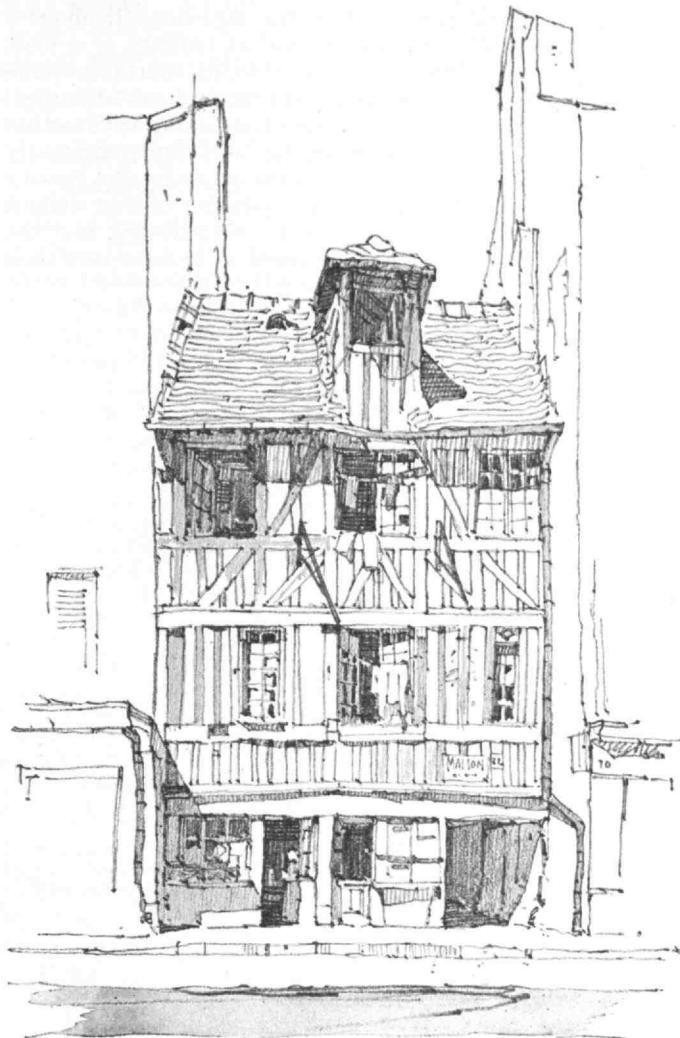
One conspicuous difference between architect and



Old house and shop in the Rue Froide, Limoges

*Cloth merchant's shop in Souk-el-Belat, Tunis*

layman lies in the architect's ability to visualize. He is picture-minded, and generally he possesses, too, a sort of projective vision which enables him to see the solids that are represented by lines and shadows in a drawing. No small part of this projective vision of the architect has been gained by him through the medium of sketching, because it is a great mistake to suppose that sketching is purely a linear exercise. Certainly these examples of an artist's sketch technique are more than this. The buildings they represent are solid things, built of ponderable materials and resting squarely on the ground. They are not figments on a paper architecture. In other words, they represent mass and give the illusion of mass. Also, they record the composition, and record it, thanks to the selective viewpoint of sketching, from its most interesting and agreeable angle.

*Porte de Bruxelles, Malines**House in the Petite Couture, at Lisieux*

The rendering of detail in a sketch is rather more a personal matter with the artist. Different men have different mannerisms, but all develop a degree of skill in suggesting the most intricate detail with greatest economy of means—which is a large part of the art of sketching. In this quality the sketches reproduced here stand high.

Color, in a monotone sketch, is the most subtle to capture of all the essentials of architecture, and resolves itself into a question of values. For these, the artist must have a highly sensitive feeling, and must develop a highly sensitive touch in rendering. He is confronted not only by those color values in stone or brick or wood, known as "local color," but by the equally important color values of sunlight and shadow.

So long as picturesque corners of Europe beckon, so long will artists and studying architects take to the road with sketch book under arm. And in due time they come back with the fruits of their pleasant labor, proving that the camera will never transcend the pencil and that art for art's sake will always give us a little more than art for the sake of record.

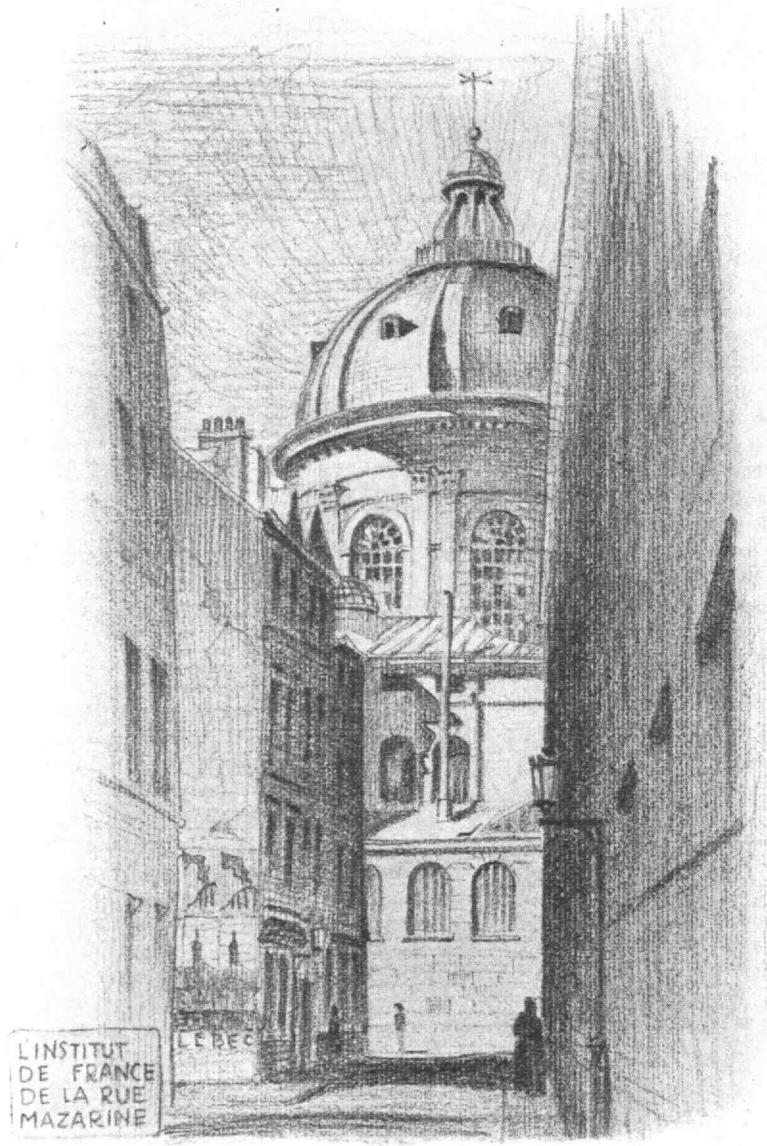
As an influence for good building, the architectural sketch book can not be overestimated, for all the measurements in the world and charts and plans can never hope to furnish as genuine an impression of a beautiful building as can a few perhaps hastily-drawn

lines which tell you just how the sketcher felt about a first glimpse of a great cathedral at twilight or a view down an old English country street at sunrise or some pinked roofed houses along the French coast at sunset.

A sketch can convey an emotion about architecture which the man who is going to build finds eminently valuable, because if he is thrilled at all by the beauty of the artist's interpretation, something of that delight he will endeavor to create in his own design, and the result will be far more important to architecture than

the most authentic mathematical reproduction. Take, for instance, the roof line, the chimneys and chimney-pots at St. Malo. It could not, of course, be copied, even for a line of community houses, but it gives one a sense of the charm of variation and the significant beauty of the chimney properly handled.

Again, what an entrance the Brussels Gate is to the City of Malines, and how interestingly it could be modified and employed as a stately doorway for a modern stone house.



PENCIL SKETCH BY KENNETH REID, '18

Radio Spreads Speeches Here Over Britain

London Hears Waldorf Talks Ahead of Diners at Table; 50,000,000 Listen in U.S. and Overseas

6 Stations Hook Up In Giant Broadcast

Vanderlip Says Wireless May Save Democracy if the Newspapers Fail

Words uttered by speakers at a dinner of the alumni of the Massachusetts Institute of Technology held at the Waldorf-Astoria Hotel last night reached listeners in London before they were heard by those in the dining room.

For the first time radio stations in New York, Schenectady, East Pittsburgh, Pa., Hastings, Neb.; San Francisco and London were broadcasting synchronously. Owing to the fact that radio waves are far swifter than sound waves, England heard the speakers before those in the Waldorf did, it was said. It was estimated that 50,000,000 persons heard the speeches and the music. The radio waves were vocal with the same words over an area of 1,500,000 square miles.

Greatest Radio Feat

Experts regard it as the greatest feat achieved in broadcasting. Three American concerns and one British contributed to its success. They are the Westinghouse Electric and Manufacturing Company, the General Electric Company, the Radio Corporation of America and the British Broadcasting Company.

Microphones in the main ballroom of the hotel, where the dinner was held, carried the voices and the music to Station WJZ, which transmitted them on its regular wave length of 455 meters. WGY at Schenectady was connected with WJZ's amplifying apparatus by land wire and transmitted synchronously on 285 meters.

KDKA

FRONT PAGE STUFF

This particular account is from the Tribune

dren of Israel or the Telephone Dinner of 1916. On March 7, Technology ate at the Waldorf-Astoria in a manner that made history.

The only visible evidence that this dinner had a profit-sharing feature was a small, brushed-brass pedestal, set upon the Speakers' Table, which supported at its top something that looked like two-thirds of a pawnbroker's emblem. It had a positively stodgy look — not half so vital as a telephone — yet when at 10:30, David Sarnoff, Vice-President and General Manager of the Radio Corporation of America, rose from his place at the Speakers' Table, cleared his throat, and

Casting Bread Upon the Ether

Fifty million people had the opportunity of listening to Technology dine in New York on March 7

Ordinarily, if you yearn for preferred front page space in every New York morning newspaper, you must sign an oil lease, make a triple play unassisted, or murder your wife with a more than ordinary display of virtuosity. In other words, you must do something pretty special. It would scarcely occur to you that you might win your column inches by so drab an activity as holding a dinner.

Neither would it to most. But to Technology's New York Alumni it did. They tried it, and it worked — beautifully. They garnished their meal with Radio, and their dream was accomplished; they shared this dinner with 50,000,000 unfortunates who had never gone to Tech, and by their generosity (which cost them no more pain than John D. Rockefeller, doling out his dimes) they made of it such a festival as eclipsed the feast that Solomon set before the Chil-

By ERIC HODGINS, '22
Managing Editor of The Review

said, "U-uh—" the pawnbroker's emblem heard

him, picked up the "U-uh" and whisked it over to Aeolian Hall, eight blocks away. It went through some dizzy twists of wire there at a speed of nothing, flat, and scuttled north and west over a shining wire to Schenectady where, a springboard having been prepared for it, it jumped hard, arched its back, and dove into space.

It was never heard of again in Schenectady. But the ripples of that dive spread out, widened, swelled and mounted so that shortly (oh, how shortly!) the "U-uh" crashed like a giant wave over half the globe, with a roar fifteen thousand times greater than the combined human voice of the universe. So you see, it was more thunderous than the best thunders of Jove, who used to be the record holder before Mr. Sarnoff displaced him. Since time began, there never was a louder "U-uh!"

Measure it another way, if you like. The General Electric Company, Westinghouse, and the Radio Corporation of America all are organizations of a generous size and as for the British Broadcasting Company, I couldn't say, but is sounds impressive and I judge the sun never sets on it. Yet for all their strength and power it took the four of them together to fling that "U-uh" its seven thousand miles. The magi of these companies worked for months to do it. Do you begin to see now why the saga of the dinner reached, among other hitherto impenetrable places, the front pages of the *World*, *Times*, *Herald*, *American* and *Tribune*?

Well, but no doubt there were other reasons, too. I must confess that, antecedent to the event, I worried a trifle about the logic of it. If it were to blanket a million and a half square miles of the earth, if 50,000,000 people could have space cancelled for them by twisting a dial, how many folk living north of 96th Street would bother to take the subway to 33d Street, and walk a long block? Fortunately, there was no cause for worry. The log book of the Waldorf shows that four hundred eighty-seven did. They were a wise 487. Aiguilette of Sea Bass, Joinville, for example, is inaudible at a distance of more than ten feet.

The evening began with a reception in the Waldorf Apartment. Everybody met everybody else, and seemed glad to. The 487th alumnus, whoever he was, was slow in coming, so that the reception was not an intensive affair. Not until the Apartment had become as hot and as stuffy as any apartment could get, did he arrive and permit Honorary Chief of Police Oscar, Maitre d'Hôtel, (the connection is not easy to comprehend) to get on with his oysters. Even before he did so (and he wasted no time) the photographer set off his star-shell with the devastating effect observable on the next page.

Thereafter, no interruptions halted the meal, save those minor ones incidental to the giving of class cheers. Of these, there were plenty, but I have searched the notes in vain for information on which class was first. Never mind: we shall get a dozen of indignant letters about the omission and the best of them, we'll print next month, from whatever class.

The last droplet of coffee went down the 487th throat at about 9:45, and the gathering focused its

attention on the Speakers' Table. At it were President Stratton, Gerard Swope, '95, President of the General Electric Company; General James G. Harbord, President of the Radio Corporation of America; Calvert Townley, Assistant to the President of the Westinghouse Electric and Manufacturing Company; David Sarnoff, Vice-President and General Manager, Radio Corporation of America; James P. Munroe, '82, Secretary of the Corporation; Frank A. Vanderlip, Member of the Corporation; George L. Gilmore, '90, President of the Alumni Association; Orville B. Denison, '11, Executive Secretary of the Alumni Association; W. T. Spalding, '10, Chairman of the Dinner Committee; Willis R. Whitney, '90; Lester D. Gardner, '98, and R. H. Howes, '03, President of the Technology Club of New York and Toastmaster.

Mr. Howes slings a mean toast. In the graceful introduction which he gave to the forthcoming events he pointed out that since broadcasting did not commence until 10:30, there was available the fraction of an hour for speechmaking that, by comparison with the future, was to be intimate and private. "Our speakers," said he, "have appeared before the crowned heads of Europe and before Senate Investigating Committees. We hold tonight, four Presidents and one ace." He paid tribute (in which the four hundred eighty-seven joined) to Walter T. Spalding, '10, who, by his work as Chairman of the Dinner Committee, had well earned the degree of Dinner Engineer.

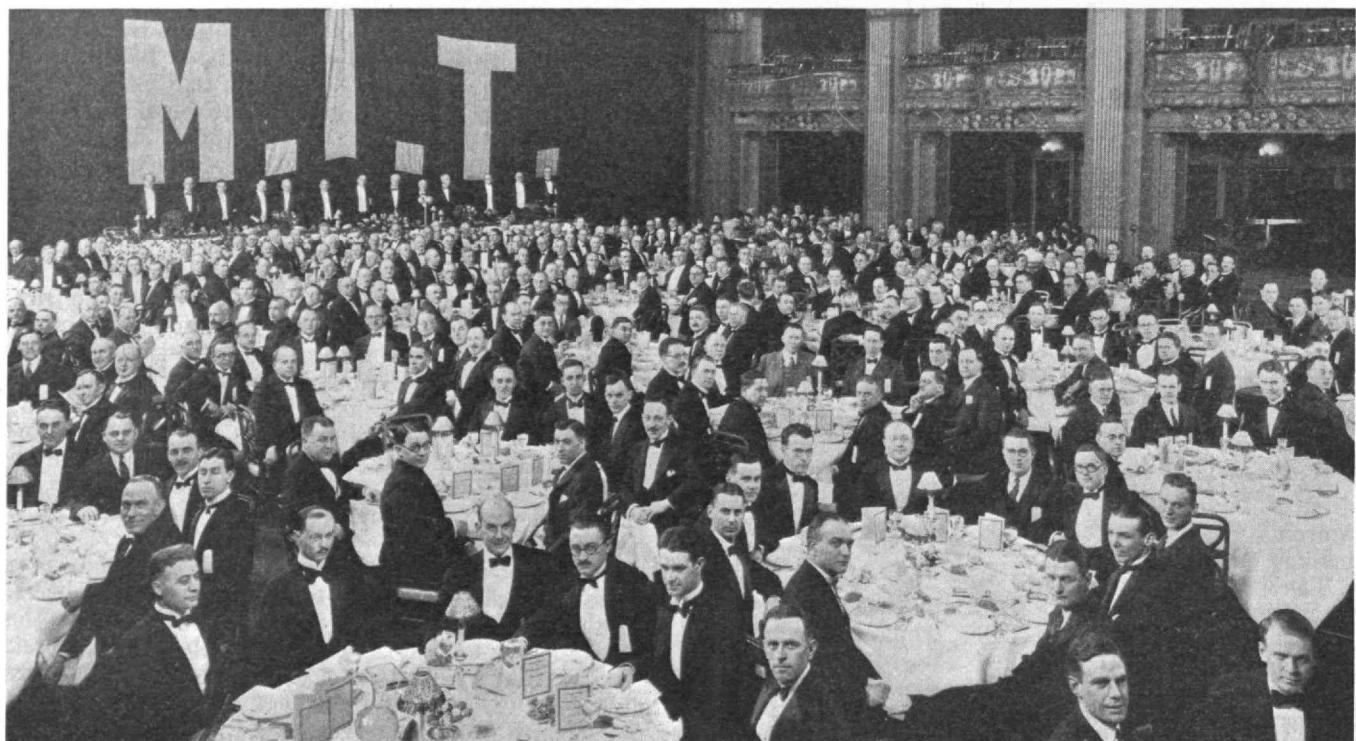
Particularly, Mr. Howes welcomed the Class of 1923 to the Alumni fold and suggested (to the precipitation of much applause) that they were one more reason added for the necessity of adequate club facilities for Alumni in New York. "We need a college club second to none!" Cheers and applause.

Then, after calming the audience excited by his eloquence, Mr. Howes introduced Dr. Stratton, recalling that when before New York had seen him he

had been on the way to Boston for his freshman year as President. The job of calming then had to be done all over again. Dr. Stratton, mindful that he was to address 50,000,487 listeners later in the evening, made his remarks short. He spoke appreciatively of his first year experiences, and after recounting some of the year's accomplishments, he took to his seat again.

Orville B. Denison, '11, Executive Secretary of The Alumni Association, properly introduced, came next on the program, and spoke to the meeting with the force and eloquence to which Alumni Council members are so well accustomed. His words concerned the visiting he had done to Alumni centers during his incumbency and dwelt upon the ever present necessity of "personal contact." Mr. Denison had brought his gestures with him and he utilized them to the full. When he is in the flood of his eloquence the geometrical figures follow fast. Thus: "One thing that my trips are bringing out more and more (straight line) is the necessity for greater personal (wavy line) contact with individual Alumni in the cities I visit (dot). I've asked all Boston and New York (rhombus) whenever they think of the name (series of concentric circles) of any man they'd like me to see (Archimedes spiral) just to give it to me so that (parabolic cylinder) I can look the man up when I'm in town." (Constellation of Orion, Great Bear, Southern Cross, etc.) The effect is novel and pleasing. Certainly, Mr. Denison pleased New York, which gave him an ovation when conclusion made it proper.

As advertised, Tech Show was represented by a skit. It was frankly a relief to me to see the two skitters. It had happened that as I made my entrance to the Apartment before the dinner with a grace that turned up one corner of the Axminster, the young alumnus who was assigned to do the worrying for the Show in New York, accosted me and asked the whereabouts of his two performers. What had I done with them? When I told him that I had done nothing with them,



ONE OF THOSE BANQUET PHOTOGRAPHS
Wide-angle lenses don't make for beauty, but they do produce inclusive records

Drucker & Balles

never having seen them, he screamed under his breath and quietly tore out two handfuls of hair (his own). It seems they had not arrived. But at some later time he did materialize them, and their Broadway presentation won them much applause.

As they retired, the clock struck half-past ten, and Mr. Howes introduced Mr. Sarnoff. Several efficient young men scurried for an instant in front of the Speakers' Table, somewhere a switch was closed, and — San Francisco, Honolulu, Sydney, London, Constantinople and points between were listening to us. So was Boston. It was a sobering thought. The young gentleman at the Class of '21 table who had been saying to his companion, "It seems there were these two traveling salesmen—" broke speech off short. Would Honolulu hear? If so, what would Honolulu think? The auditorium went dead silent. It was then that Mr. Sarnoff fired the "U-uh" heard 'round the world.

The receptive brushed-brass microphone in front of Mr. Sarnoff soon found itself launched upon the beginnings of a busy evening. Mr. Sarnoff's speech dealt with Radio Problems of the Engineer, and in it he particularized the puzzles of radio still unsolved. It was his belief that as they are solved, we shall approach the "era of a combined National Theater, National Opera House, National Auditorium, and, one almost might say, a Universal Radio Church." This was bold imagining, and I found myself wondering what the radio church of the future was to be like. One could imagine a lady parishioner of the future saying, "We always used to be staunch supporters of WQX until Dr. Tompkins began advocating reflux baptism. That was too much for us, and ever since then we've been receiving from KLKJ." Oh, undoubtedly, there will be many interesting results from the combination of the heterodyne and the orthodox. In fact, before I had done with the imaging of some of them, Mr. Sarnoff had concluded his remarks and given place to Miss Cecilia Hanson's violin. Miss Hanson played the Chopin Sarasate Nocturne in E flat, and answered the resulting applause with a charming encore.

Even before Mr. Howes could introduce James P. Munroe, '82, (whose function was, in turn, to introduce Dr. Stratton to the 50,000,000) the first telegram acknowledging the receipt of the broadcast messages arrived, and was read from the head table. It was from the Technology Club of Northern and Eastern Maine, organized that evening for the purposes of radio reception. It reported effortless reception from

any one of five stations. The telegram was the first of a seemingly endless string. Before the evening ended, a converging stream of telegraph boys had brought to the banquet hall a total of seventy-five such messages, some from Tech men, some from others,

all acknowledging and applauding the successes of the evening. Before adjournment, Manchester, England, sent a Marconigram of acknowledgment, and only five minutes after the last singing of the Stein Song, California responded.

Mr. Munroe, after these first reassuring telegrams, made a deft and graceful speech of introduction for Dr. Stratton. But why, you may ask, record the speeches of the evening here? The circulation of The Review is admirable, and all that, but it is, after all, not much more than one ten-thousandth as great as the audience privileged to listen on the night itself. Perhaps you're right. Let us content ourselves on a following page then, with excerpting a paragraph or two, and leave the major glories with the Radio Corporation and its associates. After all, we don't want to get involved in any of this broadcast litigation.

It will be sufficient to record here that following Dr. Stratton the audience acquainted the fifty million with the Stein Song of Frederick Bullard, '87, (yes, Constantinople, that was

Orville B. Denison at the piano) and that, on conclusion, Frank A. Vanderlip, Member of the Corporation, spoke on Social Implications of the Radio. Following him, that the arts might be not neglected, Mario Chamlee, "of the Metropolitan Opera," sang an Aria from Martha, and for encore obliged with "Seek Me No More." The four hundred and eighty-seven took the hint. Then, in the order named, General Harbord, Mr. Townley and Mr. Swope made their addresses. As can be imagined, the evening was wearing on. The engineers had annihilated space with splendid success, but they had not been able to tamper with time the slightest. Thus it was that when Mr. Swope arose, it was ten minutes past twelve in the Waldorf-Astoria. In Bloomsbury, the streets were filling with the lightening grey of morning, and if anything drowned out Mr. Swope's voice there, it was the clink of milk bottles. In Sydney, breakfast smoked upon the table and competed with Mr. Swope for the attention of the household. Thus situated, Mr. Swope elected to spend no more than three minutes of his allotted time. It was typical of his modesty that he, who was so largely responsible for the scientific success of the evening, voluntarily chose to play one of the most inconspicuous parts in it. The gathering stormed him with



R. H. HOWES, '03
Who, as President of the New York Technology Club,
presided at the Radio Dinner

applause, and then, once more, broke into the stirring chorus of the Stein Song.

When the last note had traveled the last long mile, a casual electrician, hardened to all wonders, tripped some switch on the neat black control boards of WJZ, and disconnected the continents. The transparent atmosphere went opaque again.

And that was all. The end had come to an evening which must have been disquieting to mystics. Would there long remain anything to be mystical about? Was science soon to be successful in searching out

On this and the following page, The Review excerpts portions of three of the five major speeches of the Radio Dinner.

Space forbids a further treatment in this issue. In a forthcoming number The Review hopes to add to this account.

DR. STRATTON

Although the Institute is not tied down by the accumulated customs and traditions of centuries, it has some that are quite worthwhile. It is known as a place where serious-minded young men go for earnest work in the expectation that their efforts will lead to a high place in a useful and honorable profession. Young men are willing to work hard for such a place; therefore, it is for us who are in charge of their training to see to it that their effort is not wasted on unessential; that we clearly recognize those things that are essential in order that our young men will not have made a sacrifice in vain of the things that others enjoy.

There is no question but that the technical student should be taught to concentrate his effort on the truthful observation of facts,—that he should be equipped with that knowledge of mathematics and science and the common sense necessary to reason and arrive at correct conclusions. These things are more or less successfully accomplished in the technical courses of our leading educational institutions. However, we are coming to realize that he should also be taught how to take responsibility, and should possess the ability to present his conclusions in a clear and convincing manner to others. Many an engineer has been kept out of high places, which by training and character he deserves, because of the inability to impart his knowledge to others. This ability is as essential to the engineer who expects to rise in his profession as it is in the practice of law.

Honesty and sturdiness of character, combined with a sense of fair play, are indispensable to the engineer. I am happy to say that this is one of the recognized traditions of the Institute. The student upon entering is at once represented in its government. He becomes a member of one of the most democratic student bodies in the country. The Institute has never suffered by placing much of the responsibility of this sort upon the student body. There exists a most happy relation between the students of the Institute and its Faculty, and among the students themselves.

There is a remarkable absence of cliques or factions. I have seen important questions pertaining to student affairs discussed by them in a manner that would be a credit to any administrative body of the faculty. Papers are often presented and discussed at their various technical societies in a way that would be a credit to our great national organizations. Is not this training vital in the education of an engineer?

every nook in the realm of nature? Was the time coming when man's reach would not exceed his grasp?

Cheer up, friend mystic; there's nothing to worry about. We may girdle the globe with sound, and add sight to it for good measure, before very many more Annual Dinners go by. At some future one perhaps, we'll amuse the diners by taking the Universe apart and showing what makes it tick, yet even though we do, there will remain always in the evening one eternal evidence of the impotence of man.

The dinner will not start on time.

The Selective Receiver *Of the radio speeches*

Another tradition is that the Institute is a place for men to work and not for boys to play. But keep in mind that this refers to work versus play as the object of a college course. There is a growing belief at the Institute on the part of both Faculty and students, that all boys (and men, as well) should know how to play. What a sad sight is the tired business man who has built up an organization with himself as the ever-present and indispensable head. Good business men have found that there is a time for play as well as work, that health is the first essential in efficient work. So it is in college.

To the graduates assembled here and in our invisible audience, let me extend my gratitude. (As employers of our graduates you have given the most helpful advice in preparing courses and other work to meet the requirements of the day, and to maintain the high reputation which the Institute holds as an educational institution. You have responded most promptly in the establishment of competitive scholarships which in the end will bring to the Institute exceptional men, whether rich or poor. By making each local organization a center where young men may go for first-hand information as to the Institute, you are aiding them in the choice of a profession and preventing the misfits so often found in educational institutions. To be frank, we are pleased to have prospective college men meet and talk with you. For this assistance, we who are in charge are indeed very grateful.

With these words, and extending to you a most cordial invitation to visit the Institute as often as you can, to bring your sons and your grandsons with you, I bid you sincerely Good-night!

FRANK A. VANDERLIP

I am profoundly impressed with this aspect of the influence of radio on the development of society and in the formation of public opinion, because I have come to realize with what is to me a rather terrible clearness, the shortcomings of our present system of informing the country in regard to affairs of great moment.

To make clear my meaning, I must digress sufficiently to outline in the briefest way, a profound change which has come into our system of news gathering and distribution. Newspapers have shown great improvement in the last score of years. They are enlarged and the scope of their field greatly extended. This has been made possible by coöperation. Newspapers must belong to news associations, must make use of syndicates and must, generally speaking, closely coöperate. The newspaper has so grown in the range of its field of news gathering that it has become a vast financial enterprise. Newspapers are today run by publishers rather than

editors and they are operated in the main with the fundamental idea of making commercial profits. As a citizen, I have no fault to find with the fact that honorable men choose this way of gaining financial returns. It is entirely legitimate, but it inevitably results in influences coming into the gathering and printing of news which were formerly much less sharply emphasized. It has become the business of great newspapers to publish a tremendously large aggregation of facts and they have set up a wonderful machinery for collecting facts. Facts, however, are not always so important as the truth. The facts may be true, but a certain aggregation of facts may not convey the truth. Newspapers have ceased to be in a large measure original investigators.

The publishers feel that the function of the newspapers has been performed when it published a record, and it has become to be a wonderfully complete record, of certain definite developments of the day. There is no urge in the business office, and therefore no urge in the editorial rooms, for individual newspaper men to dig, to explore, to collect news outside the well trodden paths of daily routine.

I could go much more deeply into this subject but we are discussing the radio and not the newspaper. To understand, however, what I believe to be in the present posture of affairs, infinitely the most important social function of the radio, one needs some understanding of this newspaper situation. My conclusion in regard to it is, in a word, that there is a vast amount of news, and much of it is the news that is most vital for good citizenship to have, that is not now being printed, and that never will be printed while newspapers are produced upon a financial structure that is now essential in creating our great newspaper enterprise. They are business enterprises not news investigating organizations. That being true, it may come and I believe it has come, to the time when the radio may save this nation because it will inform the nation. When public opinion is rightfully informed, we can rest assured as to results. If the function of the radio is to offer the one possible way in which, in an emergency, the nation may be truthfully informed, then the radio may become not merely a great scientific invention but the Savior of Democracy.

JAMES G. HARBORD

You are participating in an experience which is unique and is indeed something new under the sun. The words of your speakers are being carried to the Radio Corporation station, WJZ, at Aeolian Hall, New York, and to the General Electric Company station, WGY, at Schenectady. Each one of these stations is broadcasting the speeches.

This has so often been done, that it is now a commonplace. At this point, however, the unique feature begins. Schenectady-broadcast waves, traveling hundreds of miles, reach the Westinghouse station KDKA at Pittsburgh. Here the weakened signals are invigorated and their power increased billions of times until they are again broadcast in their full power and continue on their Western flight.



T. C. Knight

GENERAL JAMES G. HARBORD
President of the Radio Corporation of America

Their next point of refreshment is at Hastings, Nebraska, where the Westinghouse station KFKX, once more speeds them onward at full power.

Their last point of touch on the American continent is at the General Electric Company's station KGO, at San Francisco. Friendly broadcasting stations in Honolulu will then re-broadcast your speeches and they may, perchance, be clearly heard in Australia or in the far-off isles of the South Seas. At the same time, a coöperating station in England is broadcasting these signals, which can thus be heard in many parts of Europe. It may well be that countless thousands of people from Constantinople in the East, to Melbourne in the West, are your invisible auditors.

We have for the first time spread an all-embracing network of instantaneous communication over the whole earth. You are dining with fellow Alumni all over the world. The antipodes are joined in this great Radio Auditorium. The trite old saying that this is a very small world, is truer than ever.

There was a time when traveling around the world in ninety days was an unparalleled accomplishment. Marconi and those who have followed him have made Jules Verne look like a piker. With the advent of the telegraph and the cable, the earth was reduced to a few hours in temporal dimensions; tonight you are witnessing the final achievement of the earth being but a fraction of a second in size in the time dimension.

The method of joining this chain of stations is a splendid example of the close coöperation of the stations of the Radio Corporation of America, which I have the honor to represent, and its great associated companies, General Electric and Westinghouse. Without the coördination of such great stations and other organizations which are intersected in research, this relaying could never have been accomplished.

In all of these things, the sons of Technology are bearing a brilliant and honorable part. This evening's work demonstrates that words of wisdom or power, spoken in the seats of government or the home of the thinker, may reach the entire earth and that man's mastery of communication over all parts of his planet home is near at hand.

The One Hundred and Fourth Meeting of the Council

Wherein Debate Raged on the Constitution and By-Laws and Whether Their Tattered Ensigns Were to be Torn Down



JOSEPH W. POWELL
Chairman of the Executive Committee
of the New University Club

ciple, whereat the Council trod Demos is rampant still, and A. F. Bemis, '93, is the Tom Paine largely responsible.

The evening began innocently enough. Nothing in the Salad Oration gave hint of coming turbulence. Professor W. S. Hutchinson, '92, brought lantern slides and laryngitis to the meeting and with both described the new mining summer camp at the Reogle Mine near Dover, N. J. The camp, although yet incomplete, will soon be in condition to care for all the Institute's mining needs. "In fact," said Professor Hutchinson, "Dr. Stratton told me today that the Executive Committee" History will remain forever silent on the question of what Dr. Stratton told Professor Hutchinson about the Executive Committee, for Dr. Stratton took this as his entrance cue, with the result that the lights came on, applause welled up, the Council rose, Dr. Stratton bowed, and Professor Hutchinson yielded the floor.

When all the amenities had been exchanged, came the Executive Secretary to put the Salad Orator completely out of countenance by capping lantern slides with moving pictures. His film (a thousand-odd feet of it) is that same one with which he has toured the country, and shows views of Dr. Stratton's inauguration, and various personages in the Faculty and Alumni Association. Why, one wonders, permit these latter pictures to move? Why not a brilliant colored still view in the technique of Burton Holmes? Few members of the Faculty seemed to know what to do with their precious gift of motion. Mostly, they spent it upon gestures half begun and frightenedly stopped lest they should seem equivocal, or else they made no gestures at all, but sheer involuntary convulsions. Only Professor George E. Russell, '00, showed a competent understanding of the true inwardness of the poetry of motion. Have you ever seen a Spanish dancer bow acknowledgments before the drop curtain to final plaudits at Keiths? So did Professor Russell comport himself upon the silver screen.

At the piano, Mr. Denison suited music to action and frequently bettered it. It was the first net, non-taxable

Three days and an unknown number of hours after the latest anniversary of Washington's birth, the Alumni Council met for the 104th time. Bound still under the spell of patriotism, flushed, after the interval, with the remembrance of the Inspiration of the Early Patriots, the Council seemed to see in an innocent proposal of George L. Gilmore, '90, President, a certain indifference to the democratic principle upon the proposal.

piano he had come upon since at the One Hundred and First Meeting when the Engineers' Club had tried to charge him \$15 payable in advance for what he might do to it. This one was free, and free was the use he made of it.

The kaleidoscope completed, Mr. Denison took off the cap and bells and proceeded to his usual report. He had utilized the month of February for calls upon such outlying districts of his parish as Jacksonville, Atlanta, Birmingham, New Orleans, Louisville, Washington and Baltimore, and his report concerned (which is custom) live wires, contacts and boosters. He reported that all of them had been excellent. The Mint Juleps were all right, too. Mr. Denison laid particular stress, in this report, upon the addresses he had made before a number of high school students of the South, designed to interest them in the possibility of a Technology education.

By now, the clock had legitimatized the business meeting, and President Gilmore began it by calling upon Arthur T. Hopkins, '97, Treasurer, for a financial statement. He and the Council got one of almost startling informality, to the effect that although the Alumni Association was, at the moment of speech, solvent, it might cease to be so almost any minute, and might end the year in arrears as far as \$5,000.

Mr. Gilmore then gave statistics. Of some 9,300 graduates, only about 3,000 pay dues, and of the same number of non-graduates only some 2,300 pay. Obviously, these figures should be increased. Likewise, said Mr. Gilmore, of the present \$3.00 dues, about \$2.50 is paid annually per member to The Review. The Alumni Association share in annual Review profits returns to it about \$0.40 per member, thus giving the Alumni Association \$0.90 per year per member on which to operate. Because this sum has now become inadequate, the Executive Committee is at present considering an increase in dues to \$5.00 per year, effective upon all classes which have been graduated for five years or more. Mr. Gilmore's announcement was a first notice. The Council blinked but said nothing.

Heartened, perhaps, by this evidence of tractability, Mr. Gilmore plunged on. His first move was to mention the report of the Committee on the Revision of Constitution and By-Laws upon which the Council had been offered the opportunity to vote by mail. Mr. Gilmore's figures indicated that of the 130 Council members, 73 were "for" the changes, 13 suggested changing the changes, and one gentleman of incorrigible obstinacy had gone on record as being opposed to everything. To Mr. Gilmore, the contumaciousness of one was outweighed by the sweet unselfishness of 73. He took it that the Council approved and that the changes could be sent out for general alumni endorsement with the annual ballot. Everything seemed serene.

Then Mr. Bemis got up. It seemed to him that violence was about to be done to Article I, Section 1 of the By-Laws.

The section now reads in part: "Prior to February 1 the Nominating Committee shall transmit to the Secretary nominations for the offices to be filled and names to be presented for term membership on the Corporation of the Institute. The number of names presented to the Alumni for nomination for Term Membership on the Corporation shall be at least double the number of places [three] to be filled"

The proposed change was to strike out the italicized words and substitute—"as many as there are vacancies to fill . . .".

Mr. Bemis thought it wrong to name but three candidates for term membership, since it would allow the Alumni no choice for any of the offices. He understood that the change was proposed because some good men when once defeated refused to be put up as candidates a second time. He thought that an explanation of the significance of this change ought to go out along with the ballot.

H. A. Morss, '93, supported Mr. Bemis' contention. He pointed out that if three only were nominated this would place final choice for all offices in the hands of a small nominating committee and the Alumni outside of Boston would have no choice whatever. He favored increasing the number of nominations to nine rather than cutting it down to three. F. L. Locke, '86, also objected and so did Dean H. P. Talbot, '85.

Mr. Gilmore, slightly staggered by the violence of opposition to what he had considered a matter of pleasant routine, had until now borne the sole burden of defense. A. W. Rowe, '01, a member of the Committee that Started All the Trouble, sought to lend succor. For some curious reason his words, beautiful as always, seemed to carry no warming persuasion with them. No one was converted, least of all Mr. Bemis, who remained adamantine and proposed deferring the whole matter.

Mr. Gilmore pleaded that this would necessitate another mail vote for reconsultation of all members of the Council, and that because the proposition could not then go out with the regular ballot, it would so cause extra expense. He leaned on J. H. Knight, '96, for a legal opinion. Mr. Knight wasn't sure, but thought that another mail vote would be necessary.

Then other members seized the opportunity for discussion. Among them H. P. Claussen, '16, and William Green, '05, asked why the ballot to the Alumni could not call for a vote on each particular item.

Here F. H. Hunter, '02, scored a triumph. He pointed out that the proposed change read that the Nominating Committee should nominate "at least" as many as there are vacancies. His solution was to let the legislation go forward and then have the Nominating Committee of the ensuing years instructed to put up six, nine or as many names as desired.

During Mr. Hunter's plea, Mr. Bemis had been frantically ransacking all his old trunks, and had brought up from underneath the faded tintypes and pressed flowers, Article VIII of the By-Laws, which said, "These By-Laws may be amended at any time by a majority vote of the full membership of the Council, provided thirty days' notice of such amendment has been given through The Review."

"Have they been published in The Review, Mr. Chairman?" said Mr. Bemis sweetly. "Well, they have been published in the Boston papers," said Mr. Gilmore, apparently trying to answer.

But Mr. Bemis was remorseless, and refused to accept any journalistic substitute, never so metropolitan, for The Review.

"Of course," said he, "I have no authority to make a motion here, but . . ."

George B. Glidden, '93, announced that he would make any motion whatever for Mr. Bemis. So Mr. Bemis, ventriloquistically moved that the proposed amendment of the By-Laws be referred back to the Executive Committee for report at the next Council meeting.

There was some discussion, Dr. Rowe again striving to set off Edmund Burke against the Tom Paine of Mr. Bemis. Naught came of it. Mr. Knight a second time appealed to, sought to refer legal decision to T. W. Booth, '95, who blandly refused comment, so that Mr. Knight, cornered, was forced to the decision that the motion was legal. Whereupon, it passed.

H. A. Morss, '93, choked himself in the middle of a motion by the recollection that he, like Mr. Bemis, had no official standing in the meeting. Mr. Glidden once more volunteered the use of his voice, and caused it to be moved that the proposed changes in the By-Laws be discussed at a Council Meeting before a ballot was sent out.

H. H. Young, '91, supported this idea, and seemed to think that moving pictures and psychological tests were dilettante interests for the red-blooded he-men of the Council. What he liked was good old-fashioned discussion and argument. Motion passed.

This brought a lull in the storm. The fire had died out of the Bemis eye and no speech rose in the throat of Dr. Rowe. Mr. Gilmore, clutching the table for support, and giving an impression as of being swathed in bandages, introduced Mr. J. W. Powell who spoke soothingly on the New University Club. He was followed by W. H. Robinson, Jr., '24, who said, with no apparent malice, that it was a pleasure to be permitted to see the Council functioning.

W. R. Kales, '92, President of the Technology Clubs Associated, was present from Detroit to tell about the coming meeting of the Technology Clubs Associated to be held in his city on May 19, 20 and 21. "We are all ready in Detroit to give a perfectly good party. What we want is the guests." He detailed the opportunities for sightseeing and the program as arranged, and told of the Detroit Club's plan for bringing the Institute to the attention of prospective students by establishing a scholarship to be competed for by students in the Detroit High Schools.

President Stratton spoke briefly, expressing his satisfaction at the Detroit Club's action in establishing a scholarship.

W. C. Brackett, '95, reported for the Committee on the 1925 Reunion that the sentiment as he had sounded it, was overwhelmingly in favor of the Reunion, and that his committee begged to recommend it. The report was accepted and the chair was authorized to appoint a committee of five to take charge of the event.

But through all this talk of land, alumni memberships, Detroit meetings, and five-year reunions, the mind of Mr. Bemis had dwelt among the much-trodden ways of By-Laws. Seizing the now-proffered opportunity he moved (courtesy of Mr. Glidden) "that the proposed new Constitution be sent out as originally planned, and that only the proposed changed By-Laws be held up for consideration by the Council at a later date." The discursive powers of the Council seemed now exhausted, and the motion passed quietly.

A few moments later, the Council did the same thing, leaving Mr. Gilmore and his Committee on Revision alone with the wreck of their steam roller. Mr. Gilmore is in Pinehurst now, quaffing the kind nepenthe of the golf course, but the other implices are in the blizzardous Boston of Mr. Bemis and his bags. Memory fades less swiftly here, and doubtless the Committee will ache dully for some days to come.

Yet it need not consider itself too unfortunate. In all the recrimination of the evening, no one called a single member of it by the name of Scoffbylaw.

TECH MEN IN THE PUBLIC EYE

ALBERT SAUVEUR, '89

It is appropriate that the American Institute of Mining and Metallurgical Engineers should have established a memorial in the form of a lecture to Henry Marion Howe. It is appropriate, too, that it should have chosen Albert Sauveur to give the first lecture. Not only did his long and friendly association with Howe make him a happy choice, but his unique distinction as a metallurgist would have made the occasion memorable in itself. And finally the fates contrived to add further distinction to the occasion, for on the same day the Iron and Steel Institute of Great Britain announced the award of the Bessemer medal for 1924 to Professor Sauveur, "in recognition of his eminent services in the advancement of the science of the metallurgy of iron and steel."

In his discourse Professor Sauveur analyzed the outstanding characteristics that made Howe great and notable. Inquisitive, a tireless worker and a careful thinker, he had dared to study and discuss fundamental questions. At 27, Howe presented a paper to Engineering and Mining Journal entitled "What is Steel?" Designedly Professor Sauveur had chosen the same subject to indicate that the work of today was still following the lines laid down by Howe years before.

Again, he emphasized Howe's wholesome conservatism toward new theories and his unwillingness to be stampeded into conclusions. It was a conservatism that was never critical, but sane and balanced. The tendency of the scientific worker is always to see new developments in terms of set theories and hobbies, and this never makes for an honest weighing of progress.

It is our privilege to indorse the standards laid down by Professor Sauveur and to apply them with pardonable liberty to their author. With complete unconsciousness he has given us a gage by which we find him also great. Then let us add other standards—industrial prestige and academic honor, constructive thought and work—and by these other standards we do but confirm our conviction.

Albert Sauveur was born in Louvain, a name since branded indelibly on our consciousness. His education at Liege and subsequently at the Massachusetts Institute

of Technology fitted him for nine years of industrial experience, from which he returned to Harvard in 1898. There he has remained as professor of metallurgy and has made for himself and for Harvard an enviable name in the metallurgical world. In the early years of this century he was editor of the Iron and Steel Magazine and relinquished his editorial duties when the magazine was combined to form what has since become Chemical and Metallurgical Engineering.

It is a pleasure to pay our sincere respects, therefore, to a colleague in editorial work, to a brilliant metallurgist, to a Chevalier of the Legion of Honor and to a man whose kindness has stimulated many students and colleagues to great achievements.

—*Chemical and Metallurgical Engineering.*

HIRAM P. MAXIM, '86

Hiram Percy Maxim of Hartford, president of the American Radio Relay league, who sailed on the *Belgenland* recently for a tour of the Mediterranean, will keep in touch with amateur radio operators in Europe and America by means of a private radio set which he had installed on the ship. Recent experiments by the league have proven the possibility of inter-continental amateur communication, and Mr. Maxim's demonstration is being watched by radio operators of Europe and America, as the capstone of the notable achievement of last November, when the Atlantic was first bridged by the amateurs.

It is believed to be the first instance in which an amateur has installed his own set on a trans-oceanic vessel.

The enterprise was made possible through the co-operation of the British Marconi Company, which controls radio operation on the *Belgenland*. An aerial and receiving set were installed in Mr. Maxim's stateroom. The headquarters of the league at Hartford will send him a nightly program of news and features. He will reply by the commercial wireless on the ship. He will also hear amateur operators in France, Great Britain and Holland, and will be in indirect communication at all times with Captain Donald B. MacMillan and his crew of Arctic explorers near the North Pole. If, in mid-ocean, he gets out of reach of the American



ALBERT SAUVEUR, '89, BESSEMER MEDALIST FOR 1924

Born Louvain, Belgium, June 21, 1863. Professor of Metallurgy, Harvard University. Formerly Editor of "The Metallographist" and of the "Iron and Steel Magazine." Author of "The Metallography of Iron and Steel." Awarded Cresson Medal of Franklin Institute, 1913. Fellow of the American Academy of Arts and Sciences. Honorary member of Society of Steel Treaters. Sc.D., Case School of Applied Science. Chevalier of the Legion of Honor

senders, the messages will be sent to Europe and relayed back by the European operators.

A new band of wave-lengths will be used. Amateurs previously have used waves of 200 meters. These will be 100. New design fundamentals, although following orthodox patterns, have made this possible.

—*Hartford Times.*

NATHANIEL G. HERRESHOFF, '70

To prevent Great Britain from gaining permanent possession of the British-America cup, the trophy competed for by teams of six-meter yachts representing the two countries, "Old Nat" Herreshoff, noted yacht designer and builder, has consented to postpone his retirement for one more year and do his best to turn out a capable American boat.

If the British team wins this year's series in Long Island Sound, it will hold the cup, since it won last year in the Solent. The terms upon which the trophy was presented, provided that the country to win twice in succession would hold it permanently. In 1922 the American team won.

"Old Nat" has been building yachts in Bristol, R. I., for years. He has had great success with large craft for defending the American Cup—the trophy for which Sir Thomas Lipton has challenged for ages past. Among the big craft Herreshoff turned out were the *Defender*, *Columbia*, *Reliance*, and *Resolute*.

—*Chicago Tribune.*

WILLIAM F. WELLS, '09

The domestication of the oyster has been accomplished and there is ground for hope that the threatened extinction of this important and delicious seafood has been postponed indefinitely. The achievement is the work of the New York State Conservation Commission. Dr. William Firth Wells, biologist to the Commission, has devised a method for the successful commercial application of well-known laboratory methods of oyster propagation and culture, and the new methods will be tried out on a large scale during the coming season.

Unlike fishes, oysters hitherto have not been susceptible to artificial propagation. The minute size of the delicate, free-swimming oyster larvae has been the most serious obstacle, and a deplorable one, for oysters, when set, are a stationary and therefore important commercial crop. It is the decline of this crop which has caused millions of dollars' loss to states through the decline in the value of the rentals of oyster beds, to the growers through loss of their crop, and to the public through higher prices.

In order to remedy this acute situation the New York State Conservation Commission has been conducting an experimental shellfish hatchery at Bayville Ridge, L. I. Ever since Professor W. C. Brooks of Johns Hopkins University showed in 1879 how easily millions of eggs could be fertilized artificially and carried through the initial stages of development, it has been the dream of biologists to propagate oysters as fishes are propagated. Dr. Wells has applied centrifugal principles to concentration of the larvae, and the setting stage has been finally reached with possibility of important commercial applications.

"Although the principal demand at present is to increase the yield of seed, undoubtedly the next step will be to improve the quality of oysters," said Dr. Wells. "The selection of breeding stock will inevitably lead to favorable varieties, as this has always followed the domestication of animals and plants. True domestication is not complete until such control is within

the power of the culturist. Experiments along this line have been very encouraging, and it is not too much to expect that we shall some day select shellfish varieties as we do oranges or grapes."

—*The (N. Y.) World.*

FREDERICK A. HANNAH, '95

After his graduation from the Massachusetts Institute of Technology in 1895, Frederick A. Hannah taught engineering in that famous technical college for four years. Then he entered the field of business as an industrial and management engineer—a profession in which he has had signal success. He has worked out reorganization and efficiency systems for dozens of nationally known manufacturers, and has conducted many investigations of manufacturing, wholesaling and retailing methods.

"Certain types of business," says Mr. Hannah, "can be put on a paying basis much more quickly than other types. This is a factor vital to the man who is starting out with limited capital. The ideal merchandise for the man with relatively small means is something that will be consumed in the using. Groceries, automobile tires, clothing and candy are fair samples of such products. The restaurant keeper has the biggest advantage of all. The breakfast patron, if he is pleased, may come back for luncheon and dinner—giving the proprietor a 'turnover' three times a day. Pianos, cookstoves, sewing machines, and heavy pieces of furniture are good examples of non-renewable articles. The customer may make one purchase in a lifetime.

"Hardware stores are notoriously difficult to build up, while the man with small capital who intends to specialize in the sale of agricultural implements is inviting disaster. The reason for this is that the farmers are likely to buy these implements on long-term credits, and the business is quickly overburdened with outstanding accounts.

"The man who does not want to gamble on business uncertainties will find an ideal occupation in the sale of coal and ice. Winter brings a steady demand for fuel, while the housewives' refrigerators are always yawning for ice during the summer season. In the larger cities, with their steam-heated apartments, the sale of ice is steady through the winter also."

—*The American Magazine.*

GEORGE W. MCRAE, '10

George W. McRae, a graduate of the 1910 class at Technology, has been appointed Chief Engineer of the New York Telephone Company. He was born in Malden, Mass.,



GEORGE W. MCRAE, '10

Recently appointed as Chief Engineer of the New York Telephone Company

where he received his preliminary education. After graduating from the Institute's Course in Electrical Engineering with the degree of Bachelor of Science, Mr. McRae became connected with the American Telephone and Telegraph Company at New York, in the toll traffic engineering branch.

In June, 1920, he became Toll Traffic Engineer of the A. T. & T. Company. On April 1, 1922, he was appointed Chief Engineer of the Illinois Bell Telephone Company, and has now been called to the post of Chief Engineer of the New York Telephone Company, the largest of the operating telephone companies associated in the Bell Telephone System.

ARTHUR E. KENNELLY, Fac.

Prof. A. E. Kennelly of the Harvard Engineering school and the Massachusetts Institute of Technology, in an address before the Twentieth Century Club on the wonders of wireless communication, expressed his conviction that radio would prove a powerful influence for the promotion of better international understandings and the bringing in of world peace.

Using a globe for purposes of illustration, including messages to the antipodes, the radio transmission of music from country to country, and such an "annihilation of space and time" that, as he phrased it, "the most distant individual on the planet is now only one-tenth of a second away.

"Certain ideas," said Professor Kennelly, "are suggested by this progress, all of it accomplished since the first signals were sent across the Atlantic 20 years ago. I am no politician and certainly do not desire to raise a political issue. I want to raise only what might be called an engineer's issue. It seems to me that on this tenth-of-a-second globe it is about time to inquire whether there should or should not be an association of nations for the internal regulation of their mutual affairs.

"Of course, it is only recently that all this has come about, and the consequences are only gradually making themselves felt. Yet I do not see how we can escape from the pressure of these new conditions in the future. Think of it. The air of this very room teems with communications which need only an apparatus and an individual to interpret them. We have 500 sending and receiving stations in this country; there are nearly 20,000 licensed and registered operators, and it is supposed that at least 5,000,000 of us 'listen in.' For long-distance operation we have a number of so-called circuits running from America to the principal countries of Europe, and their ramifications are marvelous.

"By simply listing the various stations one gets a great and wonderful geographical impression. All the while, as we recognize radio as a great peace-making agency, we must recognize that in getting it organized we are likely to have some friction of an international kind. During the War it was found necessary among the allies to have a system whereby the various nations would not interfere with each other. The subject came up at two international gatherings I attended, one in Paris, the other at Washington.

"But we are also going to have a certain amount of friction of ideas brought about by the transmission of ideas. If we look around the world we see a tropical zone, and you can count on the fingers of your hands the great figures that came from the tropics. But taking the temperate zones of the North and South you find there active thinkers and powers which are brought into contact with ours by this new agency

more rapidly than they would otherwise be. So we are going to be brought into contact with the Asiatics much more thoroughly than would be possible without radio.

"There is going to be conflict there, because the ideas of the Asiatics differ profoundly from the ideas of Occidentals. The primordial conception of the Occidental is that to enjoy life, to have happiness and contentment, you must acquire things from the outside. The conception of the Asiatic, on the other hand, is that to enjoy life and have peace, quiet and serenity, you must withstand outside things, and cultivate internal relations—must get your happiness from within.

"Here are two sets of conceptions profoundly remote from each other. As a result, the Oriental dislikes Occidental interference in his affairs, and as soon as possible he shakes himself loose from Occidental control. I hold no brief for either of these great schools of thought. We may go too far in either direction. But it seems significant that the great religious leaders of the past have been Orientals.

"In some measure, therefore, the mingling of ideas from that direction is bound to be useful for us and good also for them. We should come to an enlightened public opinion of the globe as distinguished from an enlightened public opinion of a single country. If we can only understand the psychology of the peoples and countries brought near to us by radio, we shall be less likely to get angry with them. And so I look forward to wireless as a mingler of thought and a mingler of ideals, hoping that you will agree with me when I say that we are facing an era of the spread of intelligence, of great powers of the human mind, and of great powers for maintaining the peace of the world."

Professor Kennelly finally discussed the question of the use of an international language in connection with radio and answered a number of questions. Dealing with intercommunication in general, he said: "The future of the radio is, of course, a matter of speculation, but it is a good thing to speculate occasionally. We are going, I suppose, to see a great increase in radio development. And yet for the immediate future there is going to be no diminution in the number of cables and wires employed. More cables are being made now, and there is more stress on the cable-making industry, than ever before. The pressure for world communication is so great that we shall need all the means, by radio, cable and wire, that there is a demand for. And all that seems to be a healthy sign for the promotion of peace."

—Boston Herald.

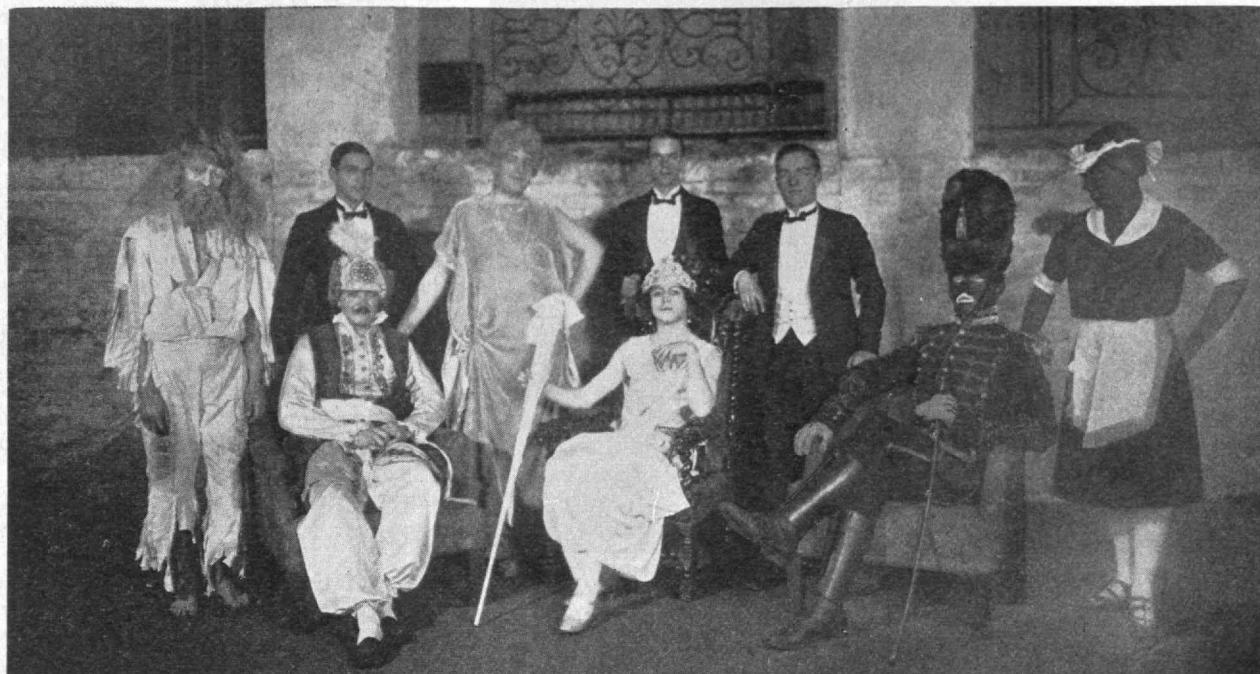
CHARLES L. W. PETTEE, '97

Charles L. W. Pettee of Hartford, formerly of Boston, has received notice of his election as a fellow of the Royal Society of Arts of London. Mr. Pettee, who is a graduate of the Massachusetts Institute of Technology, came to Hartford in 1897 to accept a position as chemist for the Pope Company. Six years later he established laboratories of his own on High Street as an analytical and consulting chemist, specializing in scientific foundry practice, and the analysis of metals, fuels, ores and oils.

During the War he did a great deal of work on American and British munitions, and contributed an original method of platinum alloys to the platinum control board for use in government laboratories.

—Boston Evening Transcript.

WITH THE UNDERGRADUATES



THE CAST OF TECH SHOW, 1924

ELIZAS CROSSING THE ICE

At the moment of writing, relations between Technology undergraduates and the Cambridge and Metropolitan police are strained slightly as the result of a difference of opinion on the safety of the ice which until a few days ago coated the Charles River Basin. The oncoming spring will doubtless do much to gloss the situation over, but there was a time within the last few weeks when relations were most unpleasant. Some days ago, two sophomores walked across from Boston, and came up to the Cambridge side just in time to be seen by a Metropolitan policeman. On being challenged by him, they put up the defense that no signs had been erected on the Boston side to the prohibition of trespassing. The assiduous officer asserted that this made no difference so long as there was a sign on the Cambridge side. To this, the students sweetly replied that they could not see the Cambridge sign from across the river. For this pleasantry, their names were entered upon the police blotter.

Some few days later, another group started across the ice from Boston, only to find a waiting patrolman on the Cambridge bank. Said he, "It will cost you \$25 to set foot on land." The resourceful students promptly divided into quarters and swarmed up the four ladders thoughtfully provided. Ultimately, only two of them fell into the ponderous machinery of the law.

During the winter, there have been several convictions for trespassing which have caused the undergraduates involved usually \$5. One magistrate accompanied a fine with a speech to the effect that the law against trespassing was made "to prevent fools from committing suicide." The student appealed the verdict, with what success, history does not record.

But what the Metropolitan police have found impossible, Nature has accomplished with no fuss whatever. There are now too many water-gaps for the foolhardiest.

MORE BUILDING ACTIVITIES

Pre-vision is the considerable gift of Eddie Pung. By authorization of the Executive Committee of the Corporation and the recommendation of Bursar Ford, the Pung-operated poolroom will be increased in size during the summer to make room for the increased traffic presumably to eventuate on the opening of the Class of '93 dormitory. A twenty by twenty-five foot section will be cut from the room at the north end, which is now being used by the dining service for storage. In this space will be placed three new pool tables and one billiard table.

Why the opening of the new dormitory will make possible a decrease in dining service storage space has not been specified. Perhaps it is that increased traffic in the dining room will hasten the food turnover.



The Hidden Idol has a sister act, too



Hood Worthington, '24, as Hashadha, the Temple Dancer in *The Hidden Idol*

NEW YORK DISCOVERS THE HIDDEN IDOL

According to early reports the tour of Tech Show 1924, *The Hidden Idol*, is a success. Norwich, Northampton, Hartford and New York have seen it now and applauded it. An excellent audience was present in New York to witness the second annual Broadway production of the Show. W. F. McCormack, '26, and J. L. Clifford, '25, scored a considerable success, but first honors apparently went to Richard Whiting, '26, principal comedian. D. A. Shepard, '26, and Raymond Mancha, '26, were repeatedly called back to amuse the audience with their banjo act. They were especially well received also at the performance for the benefit of Smith College at Northampton.

Hood Worthington, '24, scored another success as the Temple Dancer. The two outstanding song hits of the Show are apparently "Spooky Blues" and "Hokum."

THE BEAVER

The Class of 1925 quietly assumed possession of the concrete beaver and all the prestige that goes with it on March 7. The seniors, after having exhibited it in the Main Lobby a few days previously without causing more than a passing interest in its presence there, stowed it away (as they hoped) safely in a Cambridge garage. One keen-eyed junior watched its disposal there and notified the President of the junior class. Next day the juniors, set for battle, visited the garage and were disappointed only to the extent that there was no one there who seemed willing to fight for the beaver. Not a senior was in the vicinity. A colored porter obligingly helped the juniors to remove it, and once having removed it, the juniors hid it away some place, where no one else knows.

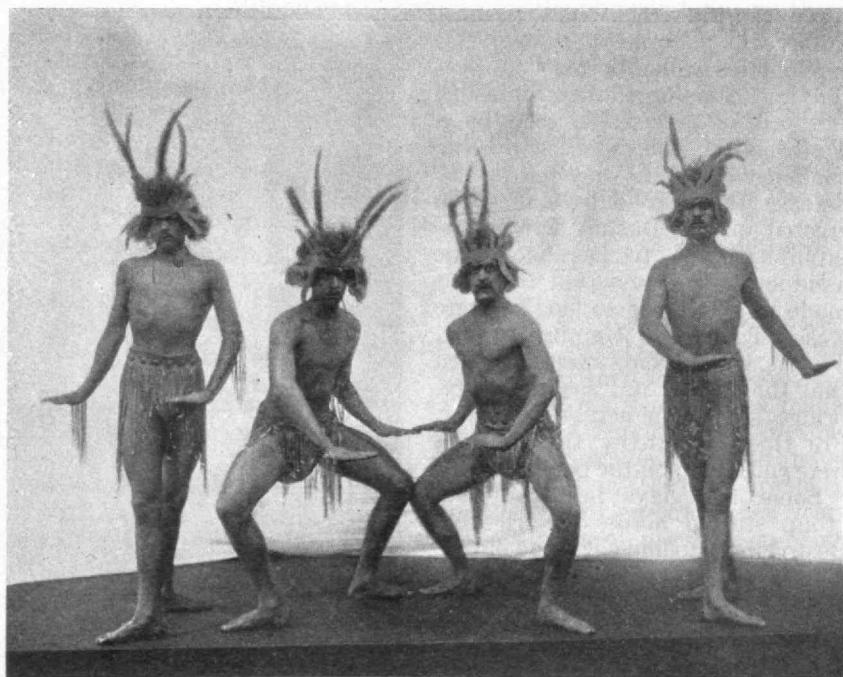
Something as close as Technology has ever come to a class fight took place upon the day that the seniors exhibited the beaver in the lobby. Although nothing happened as long as the beaver was down there, the seniors decided to carry the fight into the enemy's territory, and by and by took their mascot up to the junior drawing room. A squabble immediately started. A score or more of desks were disarranged and overturned before Professor W. H. James, '96, succeeded in quieting the mob. The seniors who have retained possession of the beaver, despite this fracas, had relaxed their vigilance to the extent which made possible its later capture in the garage.

The loss of the mascot seriously disarranges Senior Week plans. There is at present current a rumor to the effect that the seniors, who possess the mould from which the beaver was cast, are busy pouring concrete for the manufacture of a new one.

SENIOR WEEK

A tentative program for Senior Week, recently drawn up by the committee in charge, extends the festival from Thursday, June 5 to Tuesday, June 10. The class dinner will be held on the fifth of the month, the picnic on the sixth, and a tea dance on the afternoon of the seventh. The Baccalaureate Sermon will be delivered on Sunday, June 8, and the ninth will be featured by Class Day and the Pop Concert in the evening. Graduation exercises and the Senior Prom will take place on June 10.

The program, as it stands, leaves the evening of June 3 and the afternoon and evening of June 4 open for additional events to be based on future suggestions.



TECH IS HELL
And so Miss Virginia Tanner had no trouble finding these four undergraduates for her Tibetan Ballet devils

ATHLETICS

THE I. C. A. A. A. A.

In the third annual indoor meet of the I. C. A. A. A. A. held in the 22d Regiment Armory, New York City, on March 1, Pennsylvania, with a well-balanced aggregation, took the team honors with a total of $23\frac{1}{3}$ points. Yale and Princeton crowded the winner closely with 20 points apiece. Technology, with six men entered, fell short of breaking into the score column when G. C. Joyce, '24, was eliminated in the semi-finals in the 300-yard dash, and Captain R. W. Ambach, '24, and E. W. Blodgett, '24, failed to survive the semi-finals of the hurdles. G. H. Symonds, '26, running the mile, came closest to scoring when he was nosed out of fifth place by S. Kerr of Pennsylvania.

Two new records were set in the meet and one established. Verne Booth of Johns Hopkins, the favorite in the two-mile run, came up to expectations when he ran away from McLane of Penn, breaking the old records of 9m. 39 3/10s. by 3 3/10s. In the 16-pound shot-put, Ralph Hills of Princeton, who spent several weeks as a freshman at Technology in the early fall of 1922, bettered the mark hung up by himself when he made 46 feet $\frac{1}{4}$ inch.

Moore of Penn State set up the mark for the 70-yard hurdles at 9 1/10s. In the high jump won by Flahive of Boston College at 6 feet $\frac{1}{8}$ inch, nine men were deadlocked at 5 feet 10 $\frac{1}{8}$ inches for second place.

"Might have been's" do not count for much in sport, but since the Association conducted the third meet under a different scoring system than that used in the first two, several sporting writers have computed the results of the last meet if scored on the earlier basis and have thus determined that Yale would have won. Boston College would have been second, while Pennsylvania, the actual winner, would have come in third.

At the Annual Convention of the Association on the afternoon of the meet, it was voted to hold the annual outdoor championships at the Harvard Stadium. One new college, the University of Southern California, was admitted to membership; the application from Alfred University was tabled; and the meeting voted to demur

at the resignation of the University of Cincinnati until further information could be obtained. The much-maligned discus event stays on the outdoor program, and the idea of adding a relay race was turned down. Motion pictures will be pressed into service to decide the outcome of races if the judges disagree. Technology will be again represented on the Executive Committee by George Swartz, '24, who was re-elected.

THE CALENDAR OF FUTURE SPORTS

March 28—Fencing, Yale at Cambridge.
March 29—Gym, Intercollegiates at Providence.
April 21—Track, Spring Interclass Meet at Tech Field.
April 26—Crew, Varsity and 150-lb. vs. U. S. N. A. at Annapolis.
April 26—Golf, Brown at Providence.
April 29—Golf, Harvard at Cambridge.
May 2 or 3—Crew, Varsity vs. Syracuse University at Syracuse.
May 3*—Crew, 150-lb. vs. Harvard at Cambridge.
May 3—Tennis, Dartmouth at Cambridge.
May 3—Track, Princeton at Princeton.
May 7—Tennis, Harvard Grad. School at Cambridge.
May 9—Tennis, Princeton at Princeton.
May 10*—Crew, Varsity vs. Cornell at Ithaca, 150-lb. and Jr. Varsity vs. Harvard at Cambridge.
May 10—Tennis, Stevens Poly. Inst. at Hoboken.
May 10—Track, Harvard at Tech Field.
May 14—Tennis, Brown at Providence.
May 17—Crew, 150-lb. vs. Columbia at New York, Richards Cup Race at Cambridge.
May 17—Golf, U. S. M. A. at West Point.
May 17—Tennis, Wesleyan at Cambridge.
May 17—Track, U. S. M. A. at West Point.
May 19 and 21—Tennis, N. E. I. L. T. A. at Boston.
May 23—Tennis, Yale at Cambridge.
May 23 and 24—Track, N. E. I. C. A. A. at Cambridge.
May 24—Tennis, Williams at Cambridge.
May 30 and 31—Track, I. C. A. A. A. at Harvard Stadium.

*Tentative.

THE MELANCHOLY TALE OF HOCKEY

To its followers, both Alumni and undergraduate, the trials and tribulations of hockey as a Varsity sport at Technology are an old story. Although the past season cannot, under the usually accepted standards, be adjudged successful, and was exactly the reverse from the standpoint of victories, since each game brought a defeat, the conduct of the season was characterized throughout by a remarkable display of energy and spirit in the face of serious depletions of playing strength which continually beset the squad.

Last fall the prospects appeared extremely bright. A large number of Varsity men had turned out and also many hitherto untried candidates had signified their intentions of entering competition as the result of a mass meeting held by the management of the team. Among the Varsity men were six of last year's first line. Games had been arranged with the leading college teams and a Canadian trip had been

planned for the latter part of the Christmas vacation. Coach Blacklock had been re-engaged, the management of the Arena was co-operating as usual, and practice was begun with enthusiasm.

After three ice practices at the Arena, the team met the likewise inexperienced Boston University sextet, on December 7. The game was noticeable for little team work and much individual playing; nevertheless, it proved a surprise and disappointment to Technology. The men showed plainly their excellent physical condition throughout the game, but were unable to penetrate their opponent's line. They lost by a score of 7 to 1. After the B. U. game, practice was continued.

It was deemed advisable to give up the Canadian trip, partly because the team was not in a unified playing condition, and partly because the unseasonably warm weather which had been experienced in the Maritime Provinces (where the games were scheduled), had made it difficult to obtain natural ice. The men on the team were naturally disappointed, but they took the decision in a sportsmanlike manner and continued their practices with good spirit. Just before the opening of the second term, Rainnie, a former member of the Championship team of the Maritime Provinces, was engaged as coach.

Just previous to the meeting with Harvard on January 9, the first scholastic casualties were encountered, and two first string men were barred from competition by a ruling of the Institute Committee because of their scholastic records of the first term. An attempt was made to postpone the Harvard game until later in the season, and thus give the team time to reorganize, but it was unsuccessful. The men played remarkably well considering the handicap but were shut out, 7 to 0. That the score was not much greater was due to the efficient work of Captain D. H. Massey, '24, who warded off, according to newspaper accounts, some fifty-odd Harvard shots.

On January 16, just as the team was preparing to leave for New Haven, it was announced that one of the remaining Varsity players was required to withdraw from the Institute by Faculty Vote. The team was by this time used to disappointments and was willing to go and put up the best fight possible against Yale, but when the situation was explained by telephone to Dr. Mendel of the Yale Athletic Council, it was decided, with the consent of the Yale authorities, to cancel the game. This occasioned a great deal of unjust criticism of the Technology team because the facts of the matter were not generally known at the time. On February 2, the remnants of the team journeyed to West Point and lost by a score of 2 to 0 to the Cadets.

Just previous to the final game with Dartmouth on February 9, another man was lost and the match at

Hanover was contested with a Varsity man at goal and center, the rest of the team being composed of first and second string substitutes. Regardless of the difficulties, the team put up a very commendable struggle, but was no match for superior adversaries and lost, 11 to 1. Captain Massey again showed his skill at goal and prevented a much larger score for Dartmouth. G. B. MacPherson, '24, made the lone Technology goal of the season.

By vote of the M. I. T. A. A., approved by the Advisory Council, in view of his demonstrated playing ability and his commendable discharge of duties as Captain, Massey was awarded a straight "T" for the season.

CREW

Hockey in this section of the country suffers the handicap of the undependability of securing outdoor ice for practice, and crew on the other hand bemoans its existence in the spring. Each year the followers of rowing eagerly await the chance to get on the river and put into actual practice the lessons gained from workouts on the machines. The Navy has more or less open water all winter as does Penn, but Lake Cayuga and the Charles River seem to resent the coming of warm weather. Princeton secured open water on March 10, but a week later although the upper Charles, near the Larz Anderson Bridge, gave the Harvard Crews access to the water, the ice on the Basin remained solid.

As the result of Crew Week held last February, over 200 men turned out for competition, or more than enough for 25 eight-oared crews. Several tentative boatings have already been assembled on the basis of the work shown by men with experience last year. The great problem since rowing was established at Technology has been to secure the big, rangy type of athlete necessary. Whether or not the acquisition of Bill Haines as coach helped, as it doubtless did, the Crew Week drive succeeded in getting the big men out in numbers never before approached at the Institute.

ATHLETIC RESULTS TO MARCH 15

BASKETBALL

- Feb. 15—New Hampshire State College 51, M. I. T. 7, at Cambridge.
- Feb. 21—University of Vermont 26, M. I. T. 12, at Cambridge.
- Feb. 23—Clark University 15, M. I. T. 13, at Worcester.
- Feb. 27—Boston College 29, M. I. T. 17, at Cambridge.

FENCING

- Feb. 14—Columbia 11, M. I. T. 3, at New York.
- Feb. 23—M. I. T. 9, Bowdoin 1, at Cambridge.
- Feb. 29—M. I. T. 8, Dartmouth 6, at Cambridge.

GYM

- Feb. 16—Dartmouth 26, M. I. T. 19, at Hanover.
- Feb. 22—M. I. T. 27, University of Pennsylvania 27, at Philadelphia.
- Feb. 23—U. S. N. A. 49, M. I. T. 5, at Annapolis.

RIFLE SHOOTING

- Feb. 16—M. I. T. 500, Drexel Institute 498.
- Feb. 23—Columbia 1902, M. I. T. 1890.

SWIMMING

- Feb. 16—U. S. N. A. 46, M. I. T. 7, at Annapolis.
- Feb. 23—Yale 47, M. I. T. 15, at Boston.
- Mar. 4—Brown 45, M. I. T. 21, at Providence.
- Mar. 8—Dartmouth 46, M. I. T. 22, at Boston.
- Mar. 14, 15—N. E. I. S. A., Brown 32, Dartmouth 32, Williams 16, Wesleyan 13, M. I. T. 1, at Hanover.

WRESTLING

- Feb. 16—M. I. T. 16, Brown 9, at Cambridge.
- Feb. 20—Harvard 22, M. I. T. 3, at Cambridge.
- Feb. 23—M. I. T. 21, Princeton 10, at Princeton.
- Mar. 8—Lehigh 12, M. I. T. 8, at Cambridge.
- Mar. 14, 15—N. E. I. W. A., M. I. T. 16, Harvard 14, Brown 10, at Providence.

NEWS FROM THE ALUMNI CLUBS

TECHNOLOGY CLUB OF CHICAGO

By the time that these words are read our 1924 directory will have been printed and distributed. Getting out a book of this sort is surely great sport. The foundation is merely a prosaic list of names and addresses. One name has the same station as the next and as for addresses, they are merely clews new, old, and obsolete. Some folks make biography a hobby. Others specialize in Technology biographies. To one of this inclination the romantic process of progressing from a list of names to a group of individuals each in the midst of his measure of success amply repays for the details and effort of the undertaking. As for the book itself some individuals stand out from its printed pages, others are known by reputation, while a few are characterized only by the statistics following their names.

Schell, in one of the letters to his "Five Hundred" asked a rather startling question: "Did you ever wonder how many people are going to attend your funeral?" These are his comments: "I found myself considering this question some time ago and was about to dismiss it as unimportant when I was roused by the further question: 'What are the characteristics of a man whose going leaves a real sense of loss?'" In this letter he goes on to quote a description of such a man. Let me say, however, that this article is no funeral oration. In some communities milestones of progress are tombstones. Chicago looks "upward and onward forever" to the extent that funeral processions are not allowed on the principal thoroughfares.

Have you ever asked yourself the question: "What will the narrow details that fill my mind today amount to a thousand years hence?"

Would it be too much to say that a tenth of your waking thoughts and energies devoted to unselfish activities in the larger things of life might grow in magnitude of pleasant reward to eventually obscure the fruits of your other activities? Technology men are notably men of science and scientific thought. Some scientific men and some others in their search for fundamentals dig a hole to the bottom of things and habitually pull the hole in after them. Technology Alumni Clubs throughout the world exist for the purpose of encouraging and facilitating the beneficial influences of human contact and the bigger things in life.

I offer to your most serious consideration this proposition:—Look to the club as a most extraordinary means of developing that side of your personality which, after all, counts for most in the heart warming dividends of life. Increased activity on your part will react to your own benefit, and what is more, add

to the success and happiness of your fellow alumni and to the renown and influence of M. I. T.

Tech clubs offer you an opportunity to construct for yourself eternal and undying respect and affection in the hearts of many with common purposes and problems. Look from your own encompassing problems to the magnitude of human souls and act accordingly. Forget yourself in club activity and live in the sunshine of your reward. The club needs your help and you need its influence.

Harris B. McIntyre, '22, *Secretary*, General Automotive Corp., 600 West Jackson Boulevard, Chicago, Ill.

TECHNOLOGY CLUB OF PARIS

At 8:00 p.m. on January 23 The Technology Club of Paris held a dinner at which the following men were present: John B. Farewell, '13, II, Frank M. Didisheim, '22, Edward S. Chapin, '96, Harry Needham, '04, Professor Seliskar M. Gunn, '04, Alexander S. Garfield, '86, Reginald Norris, '96, Ray Bobb Walter, '16 and McCeney Werlich, '15.

This particular day was a busy one for your Secretary in that at 8:00 a.m. he was presented with a very fine son and heir.

McCeney Werlich, '15, *Secretary*, 3 rue Taubout, Paris 9, France.

TECHNOLOGY CLUB OF NORWAY

On January 11 a group of ten graduates of the Massachusetts Institute of Technology met in Christiania, Norway, and formed a new local association which we have named the "Technology Club of Norway." A set of by-laws was adopted and forwarded to the Executive Committee of the Alumni Association for approval and we have made up a mailing list which will be supplemented by the card catalogue of Alumni in Norway which we have requested from the Alumni Office. A good many of our Tech men live at some distance from Christiania, but we hope to have at least ten or fifteen members at each of our monthly meetings. We hope to be able to make the meetings worth while to those who are able to attend and once in a while we will undoubtedly have the pleasure of a visit from Alumni of other countries.

The Executive Committee consists of the following members: President: Finn Borchgrevink, '22; Vice-President: Odd Juel, '21; Secretary: Claus M. Thellefson, '22; and Fourth Member: Harald Bjerke, '23.

One of our Alumni, Rajnar Naess, '23, has just returned again to Boston and we have elected him as our representative on the Alumni Council.

Claus M. Thellefson, '22, *Secretary*, Skovveien 50, Christiania, Norway.

TECHNOLOGY CLUBS ASSOCIATED

The Committee of The Technology Clubs Associated, in charge of the three-day meeting to be held at Detroit on May 19, 20 and 21, is anxious to draw the attention of the Alumni to the numerous features of interest which they believe the meeting and the meeting place will contain for them. It consequently submits a brief of the early and the present industries of the city.

Although industrial life in Detroit did not begin until well into the nineteenth century, it is now essentially the outstanding industrial center of the Great Lakes Basin. In 1850, the Detroit & Lake Superior Copper Company established a smelter at Detroit, and in 1888 the Detroit Copper & Brass Rolling Mills were established. One of the early large industries was the manufacture of freight and passenger cars by the Michigan and Peninsular Car Companies. The Griffin Wheel Company manufactured car wheels and the Russell Wheel and Foundry Company manufactured car wheels, logging and mine equipment. They later engaged in architectural iron and steel construction.

The Detroit Bridge & Iron Works became one of the famous bridge builders of America, and the Michigan Malleable Iron Company a large producer of malleable castings and railroad materials.

The Michigan Stove Company, said to be the largest in the world, the Detroit Stove Works and Peninsular Stove Company, send their products all over the world.

As the industrial growth moved westward, shipping on the Great Lakes received a wonderful impetus; Detroit contributed her part in the production of passenger boats and lake freighters. The Detroit Dry Dock Company had a plant for building marine engines at Detroit and a shipyard at Wyandotte.

The development of the side wheel passenger boat, particularly adapted for the shallow waters of Lake Erie and river traffic, was a wonderful exhibition of engineering skill. Another feature was the ice-breaking ferries for transporting freight and passenger cars in the winter time.

Detroit also became famous for its tobacco industry. It was found that the climate along the Detroit River was peculiarly adapted to drying tobacco.

One of the famous early concerns of Detroit is the Parke Davis Company, manufacturers of pharmaceutical supplies. They introduced the capsule for medicinal use. Of scarcely less importance is the Frederick Stearns Laboratory.

In the latter part of the century, industries using salt as a basic raw material began to develop; salt for table use and packing had been manufactured for some time. In the '90's the Solvay Process Company started a plant to manufacture soda ash. Later, the Michigan Alkali Company and Church & Company started plans further down the river.

It was not until early in the twentieth century, however, that the big boom in industries started. Today the city has 3,100 different classes of manufacture. The automobile and the automobile industry comprise 48% of Detroit's industrial life.

Don't fail to read details about the automobile industry, parks, and golf clubs and so on, soon to be related.

*J. C. Hawley, '93, Chairman . Publicity Committee.
Granger Whitney, '87, Member Publicity Committee.
W. R. Kales, '92, Chairman . Executive Committee.*

Detroit, Mich.

TECHNOLOGY CLUB OF NEW BEDFORD

The annual dinner of the Technology Club of New Bedford was held at the Wamsutta Club last evening, with an attendance of thirty-eight members and guests.

Orville B. Denison, Executive Secretary of the Alumni Association, was enthusiastically received. In his remarks he emphasized the necessity of a close coöperation between Technology and the alumni, and offered several suggestions toward a more helpful attitude of alumni clubs.

The principal feature of the evening was an entertainment furnished by Willard Edwards and Lee McCanne, students at the Institute, who performed several dancing and singing acts, as advanced work in the production of the Tech Show, "The Hidden Idol," which is to be presented during March and April in Norwich, New Haven, Hartford, Bridgeport, Northampton, New York and Boston.

They were accorded an enthusiastic reception.

The present officers of the club are: President: D. H. Gillingham; Member Executive Committee: J. S. McIntyre; Secretary-Treasurer: I. M. Chace, Jr.; Boosters Committee: C. S. Ashley, Jr., T. G. Jewett, Jr., W. Tallman, J. A. Stetson, and C. F. Wing, Jr.; Committee on Coöperation with Technology: C. F. Lawton, F. E. Earle, and T. G. Jewett, Jr.

In its issue of March 2 *The Sunday Standard* (New Bedford) commented on the dinner as follows: "On Friday night two feminine figures strolled brazenly through precincts of the Wamsutta Club usually sacred to masculine members."

"The Technology Club of New Bedford was holding its annual dinner there and to the increased amazement of some of the onlookers the strolling women invaded the dining room. There it is said some of the Tech men were in turn surprised. The visitors were a festive pair, brightly bedecked as are the traditional queens of burlesque."

"All was very wrong and promised to be embarrassing until the Tech dinner committee explained. The wearers of the paint, powder, many frills and many charms were mere males in disguise. Two students had come down from Tech to entertain with the skit they will present in the Tech Show. The actors were Willard Edwards and Lee McCanne. Their antics will be a feature of "The Hidden Idol," when Tech students present it in several cities in March and April."

"The Entertainment Committee had provided the surprise, and it was not until the performers had left the scene to change into male costume that some of those present were aware that

the entertainers were female impersonators. In addition to those at the dinner who did not learn the real facts until later was the consternation of members of the Wamsutta Club at seeing dresses in the club rooms.

Ira M. Chace, Jr., '98, *Secretary*,
131 Bedford Street, New Bedford, Mass.

SOUTHEASTERN TECHNOLOGY ASSOCIATION

We have had the pleasure of entertaining our Executive Secretary, Orville B. Denison, on February 7 to 9 inclusive. Dennie nearly wore the legs off the local secretary getting around to see local alumni, and ten of them participated in an outing to Mitchell Dam and Lock Twelve, properties of the Alabama Power Company, at the invitation of Mr. W. E. Mitchell, '03, Assistant General Manager.

The party left Birmingham Friday afternoon, the trip by train being pleasantly employed by Dennie and the local secretary in nicking two of our prominent alumni for expenses by means of a bridge game. We were taken to Mitchell Dam from Verbena by automobile and were there served with a Southern fried chicken dinner. In a competition to see who could eat the most fried chicken, H. G. Woodward, '88, led easily but was hotly pursued by Dennie and the writer.

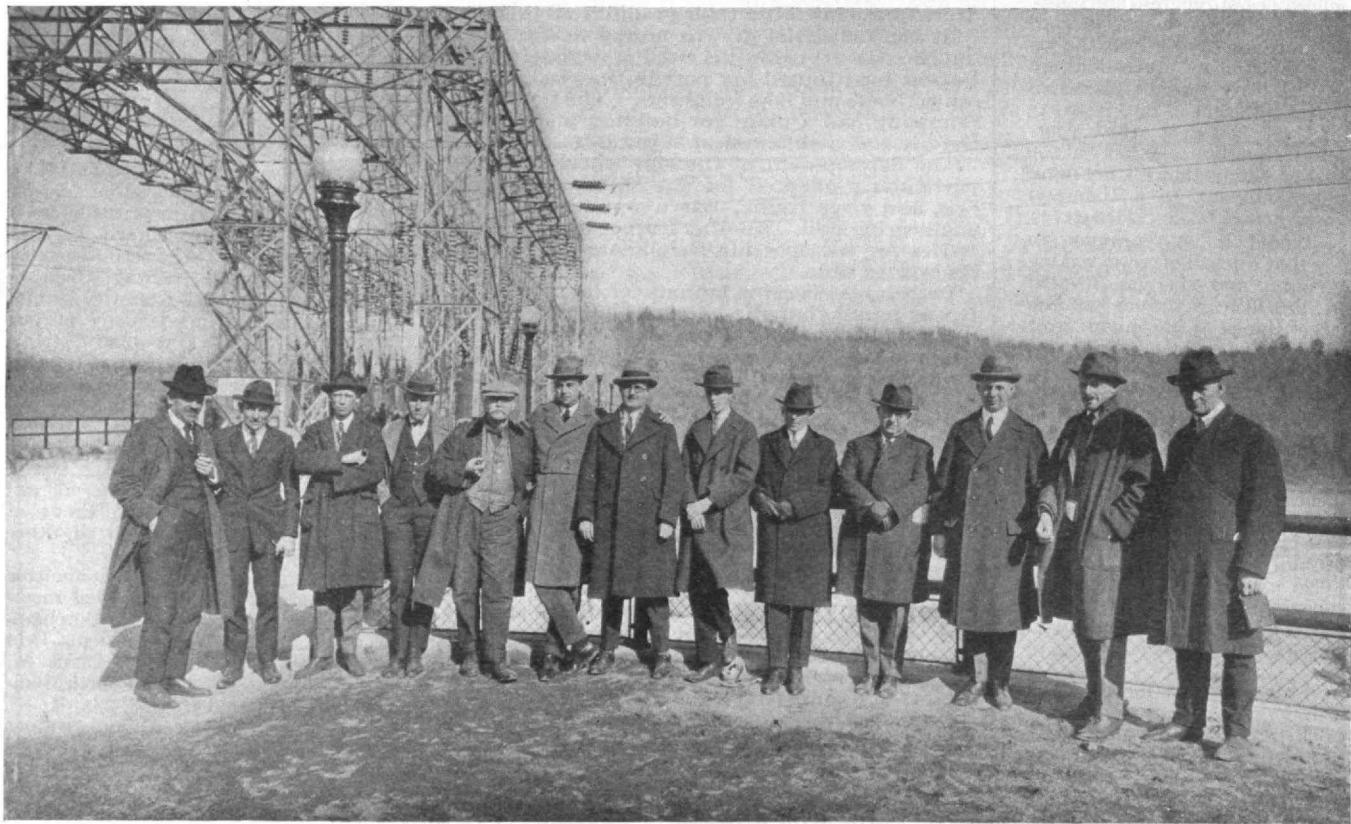
After dinner, Dennie gave us a talk on recent activities at the Institute, followed by movies showing the new buildings and some of the Faculty. Dennie, the imitable, then obliged on the piano to loud applause. The evening, or rather the night, was completed by the desperate efforts of Paul Chalifoux, '02, and R. C. Stobert, '12, to vindicate their bridge game.

Saturday morning was taken up by an inspection of the Mitchell Dam hydro-electric plant. A particularly interesting feature was the back water suppressor invented by O. G. Thurlow, '04, Chief Engineer of the Alabama Power Company.

After a hearty lunch, the party was taken by fast motor boat to Lock Twelve and a short inspection was made of this plant. The party was then driven over to the railroad, most of them coming back to Birmingham and Dennie leaving for New Orleans.

The party was a huge success, due largely to the courtesy of the Alabama Power Company officials and employees and to the fascinations of our handsome Executive Secretary. We hope that he may be able to visit us regularly.

Prescott V. Kelly, '13, *Secretary*,
1511 American Trust Bldg., Birmingham, Ala.



THE EXECUTIVE SECRETARY DID NOT SUCCEED IN SHAKING HIS OVERCOAT

The photograph was taken in Alabama but top-coats seem to be vogue. Left to right:
Mr. Sirnit of the Alabama Power Company, C. H. Boylston, '08, C. H. Carey, '12, A. B. Craig, '22, Harvey G. Woodward, '88, Orville B. Denison, '11
Prescott V. Kelly, '13, S. R. Evans, '23, Mr. Hutchins of the Alabama Power Company, Paul E. Chalifoux, '02,
R. C. Stobert, '12, H. G. Mann, '17, H. K. Higgins, '02.

WASHINGTON SOCIETY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The Annual Meeting and Dinner of the Washington Society was held at the Hotel Lafayette on Wednesday, January 30, 1924.

About sixty men attended the dinner, which was given in honor of Dr. Burgess, who has recently been appointed Director of the Bureau of Standards. Dr. Stratton came from Boston for the occasion, and gave us a very good talk about conditions at M. I. T.

Professor R. H. Richards, who is now living at Warrenton, Virginia, came to the dinner, and everybody was very glad to see him. He is in excellent health and seemed to thoroughly enjoy the meeting. As a member of the Class of 1868, he is the oldest graduate from the oldest class.

After the talks by Dr. Burgess and Dr. Stratton, Dr. Thomas H. Jaggar, of Honolulu, Hawaii, gave a very interesting talk illustrated by motion pictures and slides on the earthquake situation, with particular reference to the recent earthquake in Japan.

At the business session, the following officers were elected: President, A. B. McDaniel; Vice-President, W. M. Corse; Secretary, E. W. Washburn; and Treasurer, W. Clark Dean.

All present agreed that the meeting was a great success.

The Washington Society of the Massachusetts Institute of Technology held its regular monthly luncheon at the University Club on Tuesday, February 19. Professor Robert H. Richards was a welcome guest at this luncheon and addressed the members of the Society briefly on some recent experiences. Professor Richards is at present living on a nearby estate in Virginia. He described briefly some interesting and amusing experiences in pedagogical psychology in connection with his attempts to teach a young nephew to read.

The principal address of the meeting was given by Mr. Orville B. Denison, Secretary of the Alumni Council. His address dealt, first, with the present condition of the Institute and its work, as well as with the plans for future development, and, second, with the ways and means by which the Washington Society might assist the authorities and Faculty of the Institute in their work. Forty-seven members of the Washington Society were in attendance at the meeting. Mr. Denison's address aroused great enthusiasm among all those who were privileged to hear it.

President McDaniel announced that at the next meeting of the Society, which will be held on March 14, Dr. F. B. Jewett, Vice-President and Director of Research of the Western Electric Company, would be the speaker.

W. Malcolm Corse, '99, *Secretary,*
1901 Wyoming Avenue, Washington, D. C.

THE M. I. T. CLUB OF AKRON, OHIO

On Lincoln's birthday, February 12, the Akron Tech Club held an interesting meeting at the University Club. It was our annual meeting and considerable business was transacted around the dinner table after the members had partaken of the club's best edibles.

It was the first real business meeting we have had since last April, the meetings during the year having been mainly for sociability sake, good times, and the formation of a firmer bond between the alumni of these parts. At this meeting we adopted a constitution and code of by-laws without which we have been operating for some time.

An annual scholarship of \$350 was voted by the club, and a committee to investigate means of raising it, working out plans and details, etc. was appointed. This is following out Dr. Stratton's suggestion and we believe it will tend to arouse interest in Technology, this being one of the chief aims of the club. It is our intention to work out a method whereby this shall be made competitive.

Another committee was appointed to meet new Tech men in the locality, interest them in the club, contact with men contemplating going to the Institute, and present facts concerning Technology, what it has to offer in the way of studies, activities, etc. before secondary school students who may be undecided where to continue their education. We feel that we have been rather lax along these lines in the past. If the clubs in the different localities would adopt some similar program, interest and enthusiasm would be greatly enhanced and Technology would enroll some of the best men available.

After the business meeting the members adjourned for their annual bowling tournament. There competition was keen, although skill was not possessed by any save one, namely George Sprows, who, all agreed, rolls a mean sphere.

L. H. Burnham, '20, *Secretary,*
c/o Firestone Tire and Rubber Co., Akron, Ohio.

NEW HAVEN COUNTY TECHNOLOGY CLUB

We held a very successful dance on the thirty-first of January at the New Haven Lawn Club. The following newspaper clipping gives an interesting account of it:

"A very enjoyable gathering was held last Thursday evening by the New Haven County Technology Club at the New Haven Lawn Club. About sixty couples were present and enjoyed dancing throughout the evening. Bridge and Mah Jongg were played by those who did not care to dance. The local club is made up of all the Tech men who live in New Haven County and last evening's gathering gave all of the members, including a large delegation from Waterbury, a splendid opportunity to hold reunions with their fellow classmates. The entertainment committee in charge of the arrangements, including the President of the club, Chester Dunlap, and H. R. Polleys, Secretary, was as follows: C. V. Maconi, Chairman, W. H. Whitcomb, W. J. Jones and J. H. Richardson.

The local club is much interested in President Stratton's idea for giving high school boys information concerning Technology. The Y. M. C. A. is arranging a program for April 2, 1924, which will give high school students an opportunity to get together with representatives from the various eastern colleges. Technology will be represented either by a committee from the local club or by some one from Cambridge.

Herbert R. Polleys, '18, *Secretary,*
1523 Chapel Street, New Haven, Conn.

TECHNOLOGY CLUB OF WESTERN PENNSYLVANIA

The official organ of the Chamber of Commerce of Pittsburgh has an article on "Zoning" by Morris Knowles. This article describes the Zoning Plan and explains just what it is designed to accomplish. It is well worth reading by anyone interested in this subject.

Zoning is "the creation by law of districts in which regulations, differing in different districts, prohibit injurious or unsuitable structures and uses of structures and land."

Knowles is Chairman of the Zoning Appeals Board, and although this board has only been appointed a few months, it is already securing results as shown by recent article in the *Pittsburgh Post*. Statistics are given which show that building operations have increased even under a restrictive zoning plan.

In addition to his municipal engineering work and engagements upon industrial, town and other city planning, Knowles finds time to do more or less civic advancement work. He is a member of Secretary Hoover's Committee, U. S. Department of Commerce, studying the subject of zoning for the urban communities in the United States; a Director in the Pittsburgh Chamber of Commerce; Director in the American Institute of Consulting Engineers; President of the Engineers' Society of Western Pennsylvania for the year 1923; and Chairman of the City Planning Commission and Chairman of the Board of Zoning Appeals, which acts upon cases where the aggrieved person thinks he should be granted a permit to build which has been refused.

G. W. Ousler, '16, *Secretary,*
501 Chamber of Commerce Bldg., Pittsburgh, Pa.

NIAGARA FALLS TECHNOLOGY CLUB

When President Stratton was able to visit Niagara Falls on January 11, some twenty-five of the alumni gathered at the Niagara Club for luncheon. We were doubly fortunate in also having Mr. O. B. Denison.

Plans were laid for giving information to young men planning to go to college, so that they might definitely know what the Institute has to offer.

During Dr. Stratton's visit, occasion was taken to visit the Titanium Alloy Company, the Carborundum Company, and the Niagara Falls Power Company.

The regular mid-winter meeting was held on February 22 at the Niagara Club. The election of officers resulted in the selection of H. L. Noyes, '90, President; R. G. Brown, '16, Vice-President; and R. R. Ridgway, '20, Secretary-Treasurer.

Mr. S. J. Stone, President of the Buffalo Technology Club, entertained those present with tales of his prowess as a swimmer.

The bowling contest was close and interesting. Mr. Noyes celebrated by rolling 190.

Among those present were R. G. Brown, '16, XIV; N. Duffett, '11, X; J. J. Forrester; J. W. Gartland; J. B. Glaze, '12, XIV; Otis Hutchins, '11, XIV; W. B. Leach, '16, X; E. H. Mangan, '13, II; R. A. Montgomery, '16; H. L. Noyes, '90, I; E. T. Pollard, '02, II; R. R. Ridgway, '20, XIV; J. Strader, '96, V; and C. R. Wyatt, '21, X.

The following men from the Buffalo Club were present: S. J. Stone, Dan Potter, Hanson and Facey.

Norman Duffett, '11, *Secretary,*
c/o Union Carbide Co., Niagara Falls, N. Y.

NEWS FROM THE CLASSES

News from even-numbered classes is published in issues dated November, January, March and May. News from odd-numbered classes is published in issues dated December, February, April and July. The only exceptions to this rule are those classes whose Secretaries have guaranteed the appearance of notes in every issue. These classes are: 1896, 1900, 1901, 1902, 1905, 1907, 1911, 1912, 1914, 1915, 1916, 1917, 1918, 1920, 1921, 1922 and 1923. Other classes adhere to the alternate schedule. Due to strict limitation of space, The Review is unable to publish lists of address changes of members of the Association. The Alumni Office in Room 3-209, M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

1873

ROBERT A. SHAILER, *Secretary, 93 Church St., Winchester, Mass.*

The Fifty-fourth Annual Meeting and Class Dinner of '73 was held at Young's Hotel, Boston, at 6:00 p.m., on January 25, 1924.

The members present were Frank W. Very, Charles T. Carruth, Henry P. Cogswell, Philip D. Borden, James E. Stone and Robert A. Shailler.

President Williams being absent, Philip D. Borden substituted as Chairman of the meeting.

The Secretary and Treasurer's reports were read and approved.

The following officers of the Class Association for the coming year were duly elected: President, Francis H. Williams; Vice-President, Philip D. Borden; Secretary-Treasurer, Robert A. Shailler; Librarian, James E. Stone; and Executive Committee, William T. Leman and George M. Tompson.

The Secretary read letters from the following absent members: Brotherton, Carpenter, Guild, Johnston, Leman, Phillips and Williams.

Respectful tribute was paid to the memory of our late esteemed Vice-President, Edmund Hayes, who died at his home in Buffalo, on October 19, 1923.

The meeting adjourned at 6:30 for dinner and an hour of sociability.

A friendly call was made on us by T. Hibbard, President of '75, who conveyed the regards of '75 to '73.

Later in the evening, several members of '73 returned the call and found six members of '75 were holding their annual meeting and supper in a nearby room.

1881

FRANK H. BRIGGS, *Secretary, 390 Commonwealth Avenue, Boston, Mass.*

Frank C. Noble died at Anaconda, Montana, on January 21, the direct cause of his death being given as heart trouble, though he had not been in very good health for some time.

Frank was not a graduate of the Institute, and never married. From 1881 to 1895 he was at Lincoln, Nebraska, as Division and Resident Engineer of the Construction Department, also of the Maintenance of Way Department, and in charge of location parties of the Burlington and Missouri River Railroad.

In 1895-96 he was at Anaconda, Montana, working on railway locations of the Butte, Anaconda and Pacific Railroad.

In 1895 he returned to Boston and was here three years, working on general civil engineering.

In 1898 he returned to Anaconda as a Civil Engineer with the Amalgamated Copper Company, and in 1906 was made Civil Engineer in charge of the Anaconda Copper Mining Company, Wasbae Copper Company, and the Wasbae Smelter properties.

In 1911 he was made Chief Civil Engineer of the Anaconda Copper Mining Company.

He took great interest in good books and good music, this being his principal relaxation and amusement.

He was one of the leading members of the Montana Society of Engineers.

1883

HARVEY S. CHASE, *Secretary, 84 State St., Boston, Mass.*

In the absence of other notes from members of the class, the Secretary submits the following which gives his winter address and activities. The summer address as heretofore is 84 State Street, Boston, Mass. "Harvey S. Chase, (S.B., Mass. Inst. of Technology), 434 First Avenue, Phone 1876, Boston address: 84 State Street, Engineer and Appraiser, Certified Public Accountant, Under Laws of Massachusetts, Rhode Island, and Ohio, Investigations, Audits, Tax Returns, The Springstead Corporation — Hotel Santa Lucia (Lu-che-ah), The Florimass

Co. — 'Flo-Co' Building, next Post Office, The New England-Florida Mortgage Company, St. Petersburg, Florida."

1885

I. W. LITCHFIELD, *Secretary, Hotel Wadsworth, 10 Kenmore St., Boston, Mass.*

The brilliant annals of the class have not been notably added to during the past year, but the spirit still remains—in a manner of speaking—moderately, sufficient at least for a brilliant flare on the occasion of our Fortieth Anniversary next year. On account of various and sundry reasons the Old Guard did not keep its tryst at Wianello last year. There should be an informal rodeo there or somewhere else this June. Artie will be fishin' and the supplies will go further. Besides, Ed Dewson and Mrs. Dewson have just reported from Bermuda, and if he succeeds in his quest and is lucky on his return, it may be good business to make him President next time. The Spirituous Adviser is also a possible candidate. He has gone to Florida on a tip from Frank Page and there may be a delightful competition. The class dinner comes on the Saturday night after Easter, whenever that may be, and it is about time the legions got together in force once more, particularly with the bright prospects noted above. Fiske is class President and will lend all his energies to make the dinner a success. We will communicate at once with Jack Harding, whose father was a minister, for information as to the dinner date.

Charlie Richards wrote from Munich in November that he had been in Germany four months and in every part of it except East Prussia. He will be at the dinner and a close-up of Germany as it is today from such a close observer will be of profound interest. He writes that he was in the Rhineland during the separatist ructions and in Munich at the time of the Hitler putsch.

Bob Richardson is about due to come on for a dinner and so is Alex McKim. Then Don or Hugh MacRae, or both, have a way of occasionally dropping in from North Carolina, and with this ample notice Nat Robertson ought to work overtime and get a couple of dozen shovels ahead, so he can leave Scranton for a day. Let's have a good old whoopertewhoop at the class dinner this year.

Our dear little mascot of the Squam Lake reunions, Ruth Schubmehl, has grown up and was married on January 15 to Mr. Peter McQuerney. They are living at 47 Vernon Street, Brookline. Ruth developed a marked talent for drawing and after a course of study took up costume designing in which profession she has had brilliant success. Dr. Schubmehl is medical adviser and father confessor to the thousands of men and women at the General Electric Company, Lynn, and because of his great ability in his line is in much demand as a speaker before welfare organizations and the like.

Dodge has had a hard time of it. Work at the Charlestown Navy Yard, where he had been employed almost since leaving Tech, was cut down to almost nothing last fall, leaving him high and dry without much experience in other lines of work. At about this time, Mrs. Dodge was killed by an automobile on the streets of Boston. Several '85 men interested themselves, and through the efforts of Parsons a place was found in the Drafting Department of the Massachusetts Highway Commission. Dodge has one married daughter and a son, who help to keep up his spirits.

At the Annual Alumni Banquet in January, five '85 men were present: Talbot, Morss, Plaisted, Steele and Litchfield.

Arthur Little had the distinguished honor of life membership to the Corporation conferred upon him last fall, giving us two representatives, which is unusual if not unique. Both Arthur and Ev Morss have been Presidents of the Alumni Association and term members of the Corporation.

Harry Talbot, Dean of the Institute, was honored by re-election as a Director of the American Chemical Society in December.

1885 Continued

Fred Newell favored his friends with his annual holiday letter, giving a resumé of his interests during the year. As the father of the Reclamation Service, Fred is pretty proud of its tremendous developments. He writes: "The Reclamation Service is now a glorious memory, one which has shown a rare devotion and skill on the part of many high-minded men and women. On this firm basis we hope to see built a larger National policy of home-making, applicable to all parts of the country. Just now I am continuing along parallel lines of conservation and home-making in helping Governor Pinchot on his Giant Power Survey, which has for its ultimate object the development of cheap power and its use by greater numbers of people, particularly on the farms. It is hoped to work out a feasible plan by which there will be a larger use not only of the water powers of Pennsylvania and adjacent states, linking these together for mutual economies, but more than this to bring about the best use of the fuel resources of the state, deriving power from the great banks of culm or waste fine anthracite, which now are being washed into the rivers by the occasional storms, filling the channels and destroying adjacent lands. More important, however, is the handling of the bituminous or volatile coals of the western part of the state which, theoretically at least, should be consumed at or near the mines shipping the power by wire or in gas pipes, instead of in railroad cars, and recovering the by-products for the manufacture of fertilizers and for innumerable other industrial purposes."

The class will be much entertained by a letter from Bates. Saul may have worked in among the prophets, but Bates, who is up in the I. W. W. country, is developing most remarkably from the Bates of 1881. Here is his letter:

"My address is that of this letterhead (James H. S. Bates, M. E., Engineer and Power Plant Expert, Cloverfields Farm, Olympia, Washington). The 'M. E.' printed above is my degree from Stevens Institute (Mechanical Engineer) Class of '87. I am taking care of the ranch, a property of some value. Applications of mechanics and electricity to it with occasional surveying help me professionally. I expect to go East for a visit of a few months about a year from now. Then I can attend the '85 Annual Dinner and recall old times. Can you realize it is thirty-eight and a half years since our class graduated? I passed my sixtieth 'mile post' last summer but feel younger than a score of years ago. Engineers' meetings are frequently attended at Portland, Seattle and even Vancouver, B. C."

"British Columbia is far ahead of us in liquor policy. It has a system of licenses and permits for makers, sellers and drinkers as well. No drinking is allowed in any public place. Drunkards and saloons are remarkably suppressed with but little interference with the personal liberty of the temperate. It rigidly enforces its laws, which we cannot. Drink is sold by Government stores. They tried prohibition but when the province was filled with bootleggers they revolted and voted five to two for their present system. Alberta, Manitoba and Quebec have similar laws as a revolt against prohibition. It is but a question of time when not only the rest of Canada but the U. S. will adopt a similar policy, owing to the excellent results obtained. Only the slow advancement of civilization will overcome the drink evil. During the long history of the countries around the Mediterranean Sea the intemperate have weeded out while the sober have survived, by the law of the survival of the fittest. This is called 'Alcoholic Selection.' The experiment of outlawing the liquor traffic has been tried several times in history with always the same results. Prohibitionists are as ancient as drinkers and their views are all without exception as ancient as they are. All history shows that before alcoholic selection, dry laws are non-enforceable, while after it they are superfluous. This is exactly our present experience and will so continue. To a moderate extent I am an author of the propaganda literature of the association against The Prohibition Amendment, a national society strong in every state to educate the public to these facts. We and other anti-dry societies are doing excellent work thus. Already, we have the notorious Anti-Saloon League on the defensive. Slowly, we are gaining the balance of power. The fear of this by the politicians foisted prohibition upon us in the first place; it alone maintains prohibition now. Hence, when we reformers gain the balance of power, the politicians will flock to us as they once did to the drys. It is owing to the alcoholic selection of his race that a Jew is almost never convicted of drunkenness. The Canadian Provinces and Sweden have shown that drunkenness can be controlled if not completely prevented before alcoholic selection. Drinkers are licensed as well as makers and sellers, most effectively in Sweden. When a license is abused, it is revoked when Mr. Drinker can get none for 'love or money' thus securing every advantage of dry laws without much reducing the liberties of the temperate. If you think this too controversial to present to the class, well and good, but there is nothing to offend a prohibitionist in it, as it is an account of

actual experience, not 'theory' or 'wet propaganda.' Leading drys admit now their laws and cause are in peril."

1887

EDWARD G. THOMAS, *Secretary*, Toledo Scale Co.,
Toledo, Ohio.

No notes received from the Secretary.

1889

WALTER H. KILHAM, *Secretary*, 9 Park St., Boston, Mass.

The Brooklyn Engineers' Club feasted on the evening of February 21 on a "Dunphe chowder," so a red ink postal informed us, with an urgent request not to miss it. If this is our Dunphe (and there couldn't be another) the Secretary nominates him to repeat the same at the Thirty-fifth Anniversary Reunion, which is looming up dead ahead.

1891

HENRY A. FISKE, *Secretary*, Grinnell Co., 260 W. Exchange St.,
Providence, R. I.

No notes received from the Secretary.

1893

FREDERIC H. FAY, *Secretary*, 200 Devonshire St., Boston, Mass.
GEORGE B. GLIDDEN, *Assistant Secretary*, P. O. Box 1604,
Boston, Mass.

In December last, Taintor acquired a large interest in the Gila Valley Power District, in Arizona.

The Gila Valley Power District embraces all of the land in the Antelope Valley, part of the land in Mohawk Valley and most of the land on what is known as the Wellton Mesa. This is all back country of Yuma and a large portion of it is traversed by the State Highway, which has but recently been completed through it.

A power line will be built from Yuma to Wellton, over the Yuma Mesa and through Telegraph Pass in the Fortuna range of mountains and on to Wellton and the Mohawk Valley across the river. The line will require about 100 miles of primary and distributing wire. It is understood the power district will get power from the Yuma Ice, Electric & Manufacturing company, which in turn secures it from the Southern Sierras Power Company.

C. W. Taintor & Company has the contract for the erection of the power line and it is its intention and also the intention of the power district to have the line built before the end of March so that power will be available to the ranchers of the two valleys for pumping water for their crops during the season of 1924.

The completion of this power line means the rapid development of a vast territory of the richest land in the Gila River bottoms. Ultimately more than 100,000 acres of land will be served by this power line, almost twice as much land as there is in the Yuma Valley.

F. N. Dillon is in California and will return home the last of March.

In the Boston *Transcript* for January 25, 1924, appeared the following notice of the death of Mrs. Frank L. Connable:

"Mrs. Julia K. Hosford Connable, wife of Frank Lee Connable, Vice-President of the du Pont Powder Company, and a prominent resident of Wilmington, Del., who died in Paris, France, following a series of operations and had been ill less than a month, was buried at Mt. Auburn yesterday. She went abroad last April and was studying vocal music in Paris. She was in good health up to December 6 when stricken with an intestinal ailment.

"Mrs. Connable was a member of a prominent Massachusetts family. She was the daughter of Isaac B. Hosford, one of the organizers of the International Paper Company and of the St. Croix Paper Company of which he is President; and of Elizabeth King Hosford of Chapel Hill, N. J. Mrs. Connable was born in Saxonyville, forty years ago, and was a grand-niece of Rufus King, who was the first ambassador to Great Britain and of John Lord who wrote 'Beacon Lights of History.' Her grandfather was Nathan Lord, for twenty years President of Dartmouth College.

"Mr. and Mrs. Connable were married nineteen years ago and spent part of the year at their New York residence, 11 East Sixty-eighth Street, part on their estate, Rock Farms, Wilmington, Del., and also at their winter home, Miami, Fla."

The Boston *Transcript* for February 15 gave notice of the death of George B. Perkins, as follows:

"George B. Perkins, who had been living abroad for a number of years, is dead at Cannes, France, according to information just received by his brother, C. B. Perkins, of 36 Kilby Street.

1893 *Continued*

Mr. Perkins was a native of Boston and the son of the late Charles B. Perkins, founder of the well-known Boston cigar firm of Charles B. Perkins & Co. His mother was Eleanor E. (Bisbee) Perkins.

"The son studied at the Massachusetts Institute of Technology, and was graduated in the Class of '93, having in the meantime specialized in architecture. Thereafter, he devoted his attention to artistic pursuits, and while abroad had studied painting. He was fifty-three years of age. Besides his brother, there is a surviving sister, Mrs. H. H. Holton, of this city."

Rev. Frederic W. Fitts has been elected to the Executive Committee of the Episcopal City Mission. He has been Rector of St. John's Church, Roxbury Crossing, Boston, for a good many years, and is very active in Parish and Diocesan work. He is a member of and Secretary to the Standing Committee of the Diocese of Massachusetts, is Chairman of the Department of Religious Education, and is Chaplain of St. Luke's Home for Convalescents.

From the Ventura, California, *Free Press*, for January 2, 1924:

"Announcement was made here today by State Highway Engineer, R. M. Morton, of the resignation of W. W. Patch, for nine years Division Engineer for the California Highway Commission in Southern California with headquarters in Los Angeles. The resignation becomes effective today.

"Spencer V. Cortelyou, assistant to Mr. Patch, will be Acting Division Engineer pending the appointment of a successor.

"Patch, who is well-known among the engineers of the West, plans to enter the real estate business in Santa Monica, doing some professional work in a consulting capacity.

"The retiring highway official is a graduate of the Massachusetts Institute of Technology. At one time he was assistant engineer for the New York Aqueduct Commission and from 1905 to 1913 he was construction and project engineer for the United States Reclamation Service.

"During his nine years of Division Engineer for the California Highway Commission, Mr. Patch has had direct charge of the design and construction of several hundred miles of hard surface pavement of various types and a number of large bridge projects, including the recently completed San Gabriel River Bridge on the Foothill Boulevard in Los Angeles County.

"Practically all of the pavement through San Bernardino and Riverside Counties on the Imperial Valley lateral, the grading and paving of the Ridge Route between Los Angeles and Bakersfield and the completion of the paving through Mint Canyon to Palmdale and Mojave was carried on under his direction.

"Expenditures for construction in Division VII during the time Mr. Patch has been in charge have amounted to more than \$12,000,000.

"Besides the Ridge Route, other notable achievements to his credit include the recently completed pavement along the Coast between Santa Monica and the Rindge Ranch and the planning of the heavy construction now underway between Point Mugu and Sycamore Canyon in Ventura County."

Percy H. Thomas, at the Mid-winter Convention of the A. I. E. E., which was held in Philadelphia in February, presented a paper on "Superpower Transmission, Economics and Limitations of the Transmission System of Extraordinary Length." This paper is a study of the transmission of very large blocks of power for extraordinary distances and has for its purpose the bringing out of the major operating characteristics of such a system, the characteristics which it possesses which are different from those of shorter transmissions and the duties imposed upon generators, transformers, synchronous condensers, switches, etc., primarily as affecting their design. The paper defines a superpower transmission line as a line of great length in which the charging kilovolt-amperes per mile of length is of the same order of magnitude as the reactive kilovolt-amperes developed by the full-load line current passing through the reactance of the line and in which the resistance is small relative to the reactance.

Such a line is adapted for economical transmission only for a fairly definite amount of load and any great increase or decrease below this point leads to poor economy or instability. Since, however, the load appropriate to a given line depends upon the voltage, an appropriate line can be laid out for any reasonable amount of power to be transmitted.

In order to secure a definite set of conditions to serve as a specification for determining the performance of generators, transformers, etc., all applying consistently to the same system, a typical hypothetical transmission has been assumed, namely, a delivery of 400,000 kw. over a distance of 500 miles over four circuits, 220,000-volt at each end.

The characteristics of this line are worked out showing the efficiency, condenser capacity required, data on circuit breaker arrangements, protective relays connection to receiving network,

provision for spare parts, switching of units and ratings of various apparatus.

It is shown that such a system is very sensitive to the receiving end voltage; when this voltage drops, there will be a tendency for the generators to run away if the system is not properly laid out.

In addition, a discussion is given of the effects of various prescribed values for the terminal voltage between 220,000 and 245,000, to show the effect of increasing the voltage 10 per cent, of maintaining the generating end 10 per cent higher than the receiving end and also of stabilizing the middle point with synchronous condensers.

The typical hypothetical case chosen shows one layout, it being recognized that other layouts may be chosen. This particular layout is operated without any high-tension switching of live lines. The layout is intended to relieve the duty on circuit breakers and as a matter of fact no breaker can be called upon to interrupt a short circuit of more than three-quarters of a million kilovolt-amperes; this is a very favorable condition and is secured without materially limiting the equalization of the load. The layout connects with the assumed distribution net at a considerable number of points and no large portion of the total delivered power can be concentrated at any one point; this serves to secure a very intimate connection between the network and the transmission, and at the same time prevents any one breakdown, however complete, from materially disturbing the major portion of the transmission system.

1895

FRANK A. BOURNE, *Secretary*, 177 State St., Boston, Mass.

The following were at the Alumni Dinner when the Blashfield Mural was unveiled: H. M. Haven, T. B. Booth, W. C. Brackett, Roger Williams, Gustavus Clapp, C. W. Berry, F. A. Hannah, Frank A. Bourne, Walter F. Stevens, Louis K. Rourke, and F. T. Miller. It seems to be the unanimous sentiment that the mural was just what the Walker Memorial needed, and that the menu was a great success. Ninety-five is also on the fine art map, for the son of Harry Whorf, '95, John C. Whorf, has been painting in America and in Spain, and at his first exhibition, well described in the *Boston Globe* for January 28, he had sold fifty-two pictures. Following the article, he completed the sale of everything he exhibited. This was at Miss Horne's well-known Picture Gallery under Trinity Court, Stuart Street. The pictures started by selling to artists, then to architects, and after that, everyone wanted one. We do not know about Whorf, Junior, but it would be hard to hold '95 down.

Professor Gill sends '95 a clipping on "Noted American Financiers" from *Redmond's Weekly* for January 11. Of course, it is about Swope, as the rest of us do not seem to have arrived at that distinction.

The New York Monthly Luncheon was called on February 4, at the Tech Club, by Franklin Park, and was attended by Canfield, Cushing, Coddington, Fred Cutter, Ames, Drake, Draper, Gardiner, Hannah, Park, Schmitz, Swope, Wiggin, and Wolfe. The Stein Room is just the place for class luncheons or dinners, with its panelled walls bearing the steins and pipes now serving only as reminders of the past, but still radiating an air of good fellowship engendered by that past. After an unusually appetizing luncheon, Swope brought up for discussion his plan for adjusting the tuition fee at the Institute, to the actual cost of the courses, and establishing a loan fund for those students who cannot afford to pay the full cost, subject to examination for mental and physical fitness. The plan was described in the February issue of *The Technology Review*. It evoked animated discussion, both sides being argued warmly. Swope said that he knew many business men, willing and amply able to assist the Institute or the students, who would subscribe to such a fund, but would not stand for frequent touches in "drives." Nine of the fourteen members present said they would have taken advantage of the offer, when they were students, if it had been open.

Fred Hannah had an article on Corporation Management in the current *American Magazine*; there was also an excellent picture of his good-looking face.

Here are some notes on aerial photography from Gerard Matthes now "come East"—just the sort of a letter the Secretary likes to get:

"For the first time in many years I am back in the 'effete East,' apparently to stay for some time. I entered private business a while ago as consulting engineer specializing in aerial photographic map construction, and am at present retained by the Fairchild Aerial Camera Corporation as their consultant in systematizing and developing their aerial mapping department. My address is 136 West 52nd Street, New York City.

"It was quite a jolt to leave California in mid-winter and land in the slush and ice of New York. In January, I was enjoy-

1895 *Continued*

ing the privileges of sitting with doors and windows open wide in my office in Hollywood, California, and seeing the poinsettias outdoors six and eight feet high. Hollywood is my home town, and naturally, in my humble estimation, there is no place that can beat it, not even Lil' Ol' New York. We Californians, as you know, are boosters, and knockers don't live among us. It is what makes places like Los Angeles grow so fast. Los Angeles is now the seventh industrial center in the United States as regards output. Its harbor is doing as much business, in tonnage, as New Orleans, which has ranked second in the country for some time. Perhaps I had better stop here for fear of getting started on a lengthy subject.

"A word about aerial photographic mapping may be of interest. This is a new art, and commercially it has made its debut and is awakening an unusual amount of interest. It is destined to play an important rôle in our civilized world and will revolutionize many things. Our old ideas of a map were about as limited as our forefathers' ideas were of transportation in terms of horses and buggies. The automobile has not only revolutionized transportation, it has changed our mode of living. Aerial photography is finding application, likewise, in fields hitherto unsuspected, and is about to revolutionize some lines of business. The misgivings about the possibilities of producing accurate maps based on aerial photographs have given way to unreserved approval and expressions of confidence on the part of those who have made use of it.

"A high order of skill and the application of engineering knowledge are indispensable in order to get first-class results. My ambition is to make aerial mapping of service to engineers and surveyors, and I am in this business to stay. At this moment I am the only consulting engineer in the country specializing along this particular line."

1896

CHARLES E. LOCKE, *Secretary, M. I. T., Cambridge, Mass.*

J. ARNOLD ROCKWELL, *Assistant Secretary, 24 Garden St., Cambridge, Mass.*

After long suspense, Charlie Hyde has been heard from and the result is well worth the delay. The following represents a very abbreviated report of his trip prepared by him and also describes his loss in the Berkeley fire. Every classmate will read his story with much interest.

"The University of California has for many years been granting to members of its teaching staff in professorial positions, sabbatical years—or half years at intervals of three and one-half years—for purposes of rest, travel and study. It was my good fortune to obtain this privilege during the second semester of the academic year 1922-23 and I was thereby able to be absent from the University for the first seven and one-half months of last year. We decided to utilize our vacation period by taking a trip to Europe. The trip was intended to be and proved to be simply broadly educational. It was not professional except in a most limited way. It was undertaken in the hope of acquiring a fairly intimate view of the life of the people in the countries which were to be visited and a better appreciation of their art, history and literature and their social, economic and political conditions.

"This was a particularly opportune time for my family, which consists of Mrs. Hyde and our three daughters, the oldest of whom was about to enter Pratt Institute in Brooklyn. The next younger was ready for the University of California and the youngest was ready to begin high school work (the tenth grade in the school system of California).

"We went East via the Grand Canyon, Kansas City, Chicago, Pittsburgh and Washington, and sailed from New York for Bremen. In New York, we purchased a Ford touring car which we shipped to Genoa.

"We spent two most interesting weeks traveling from Bremen to Genoa through Hamburg, Berlin, Dresden, Nuremberg, Munich and Zurich, going into Switzerland across Lake of Constance and into Italy through the St. Gothard tunnel.

"We found our car awaiting us in Genoa, together with all necessary license plates, international traveling pass, customs documents, etc., obtained from the Royal Automobile Club of Great Britain through tourist membership in the Automobile Club of America, which I joined while in New York.

"We spent four glorious months traveling in the car through Italy, France, Belgium, Holland, England and Scotland. We were absolutely independent of the beaten tourist routes and in many cases avoided the main roads, particularly in sections of France and England. We visited many of the most interesting portions of all the countries through which we passed. As a rule, we attempted to stop in hotels and inns frequented by the people of the country rather than by tourists. Our automobile trip comprised nearly 6000 miles: 1650 miles in Italy, 1920 miles in France, 220 miles in Belgium, 320 miles in Holland and

about 1700 miles in England and Scotland. We spent from two to four days in each city of Germany and Switzerland, about ten days each in Rome and Florence, two weeks each in Genoa and London and three weeks in Paris. We spent at least one night in seventy-six places and drove through several hundred cities and towns. We spent from two to four days in such places as Naples, Venice, Marseilles, St. Malo, Bruges, Grasmere and Edinburgh. In many places through which we passed we were able to get a very good idea of the most interesting features in from one to four hours. We traveled extensively through the Chateau country of France along the Loire and through the battlefields of France and Belgium.

"The automobile proved to be a most pleasant, comfortable and convenient means of transportation through Western Europe. This is an area of relatively small distances with features of great interest comparatively close together. The automobile was most valuable as a means of seeing and studying these things and of getting acquainted rather intimately with the habits and life of the people. It is economical and extremely flexible. By the use of our 'carnet des passages et douanes' we were able to pass from country to country without delay or inconvenience of any kind and without payment of duty.

"We finally sold the car in London, whence we sailed for America. We spent a few days with our families in Connecticut. I returned home through Niagara Falls, Detroit, Ann Arbor, Chicago, St. Paul and Minneapolis and through the Pacific Northwest. Mrs. Hyde and the two younger girls returned via Niagara Falls, Chicago, the Grand Canyon of the Arkansas, Salt Lake City and the Feather River Canyon.

"We felt that our vacation had been spent in a most rewarding fashion and we have innumerable things to think and talk about for years to come.

"About a month after getting home, a portion of the city of Berkeley situated on the hills north of the campus was visited by a very disastrous fire which destroyed our home and almost all that it contained. About 700 houses were burned and it is estimated that fully 5000 persons were rendered homeless. The fire was so terrifyingly hot and swift that very little was saved from the houses. Many things taken from them were burned in the streets. Because of a very large open lot adjoining our home and because of the work of a group of University boys who arrived on the scene just as our house caught fire, we were able to save some of our down-stairs furniture and some of our outer garments. Everything else was lost. Less than fifteen minutes elapsed from the time that our house caught fire until it fell in a mass of ruins. We are preparing to rebuild with a more fire resistant type of construction. E. B. Mead, M. I. T., '97, is designing the new home upon which we hope to begin construction in a month or two. The house will be of Spanish or Italian feeling with stucco walls and tile roof, at least in part."

Hyde also sent the Secretary a copy of his paper entitled "Some European Experiences and Impressions" which he gave before the California Section of the American Water Works Association. Unfortunately, this is too long to be reproduced in the Class News and it is not of a nature that lends itself to condensation. Charlie is a keen observer and a charming writer and his detailed account of his travels, the places visited and impressions received gives an extremely good idea to anyone desiring a first-hand report on European conditions.

Denison, the official Alumni Executive Secretary, is forming a fine connecting link between Boston and other parts of the country. He reports that he has seen a number of '96 men in his travels, notably the bunch at Schenectady; Tozier, Haste and Stone at Rochester; Holland at Buffalo; and Strader at Niagara Falls. He also tried to reach McKay at Pittsburgh and Dan Bates in Philadelphia, but was unfortunate in finding them out of town.

Steve Gage gave a talk on March five to the Boston Society of Civil Engineers on the Control of Pollution by Oil of Public Works in Rhode Island. This oil pollution problem is becoming increasingly serious, as has been recognized by Gage and has resulted in studies by him to remedy it.

Dr. Coolidge came on to Boston from Schenectady on February twelve as a member of the Visiting Committee of the Electrical Engineering Department at Technology.

It is with great regret that announcement is made of the rather sudden death of Charlie Stone in Rochester on January twenty-seven, as the result of a surgical operation a week previous. Charlie was graduated from the Chemical Department and later received a degree of Master of Science from the University of California in 1906. He was born in West Newton, Mass., on September 11, 1876; married Miss E. May Kinsman at Watertown on June 5, 1901 and had one daughter, Margaret Tenney Stone, born on June 15, 1911. He was instructor in Rhode Island State College in 1896 and 1897; assistant chemist for the Massachusetts State Board of Health from 1897 to 1900;

1896 Continued

assistant gas inspector for the Massachusetts State Board of Health from 1900 to 1905; in charge of oil and cement laboratories for the U. S. Reclamation Service at Berkeley, Calif., and St. Louis, Mo., in 1905 and 1906; chief inspector of gas and gas meters for the Public Service Commission, Second District of New York from 1906 to 1911; manager of the Gas Department of the Orange County Lighting Company, Middletown, N. Y., from 1911 to 1917; superintendent, Station A, Detroit City Gas Company in 1917 and 1918; manager, Lansing Fuel and Gas Company of Lansing, Mich., in 1918 to 1919; and laboratory director of the Rochester Gas and Electric Corporation from 1919 to 1923. He was a member of the R. A. and commercial travelers M. A. A., American Chemical Society, American Society for Testing Materials and American Gas Association. He was the author of a book on practical testing on gas and gas meters and numerous articles in scientific journals on gas and allied subjects and had served as technical expert in various court cases and as consulting chemist and engineer for various firms.

A large number of the questionnaires for the class book have been returned, but they are now filtering in all too slowly. The committee asks that every man who has not filled out his questionnaire do so without delay.

Charlie Hyde lost many of his books in the Berkeley fire. One loss was that of the '96 Technique which he is extremely anxious to replace. If any classmate knows where this book can be obtained, Charlie would like to hear of it without delay.

1897

JOHN A. COLLINS, JR., Secretary, 20 Quincy St., Lawrence, Mass.

CHARLES W. BRADLEE, Acting Secretary, 53 State St., Boston, Mass.

No notes received from the Secretary.

1899

W. MALCOLM CORSE, Secretary, 1901 Wyoming Avenue, Washington, D. C.

Plans for the Twenty-fifth Reunion are progressing, and all members of the class are urged to save the dates June 14 to 17 for this very important event. It will be held at the Wesley House, Martha's Vineyard, Massachusetts. As it is the Twenty-fifth Reunion, there is sure to be a record attendance.

Please make a note of the time and be sure to come.

1900

GEORGE E. RUSSELL, Secretary, Room 1-272, M. I. T., Cambridge, Mass.

Life as a class scribe begins to look pretty good after all. Following the announcement of his election, there came to the Secretary several letters from the fellows wishing him good luck and offering him their help in boosting class affairs. Coming unsolicited and breathing a live interest in things, they showed plainly the desire that the men have for closer relations, and an eagerness to get news from those they cannot meet.

Dick Wastcoat was among the earliest of these. He writes:

"Praise be to Allah!

"For many moons I have looked in vain through the many issues of The Review for something that hasn't been there, and just before I came to the class news in this February issue, which has just arrived on my desk this morning, I passed the remark, 'I bet there's nothing in it.' And lo and behold, we have come to life again. Maybe so many years have passed it is our second childhood, but if it is, let's make the most of it."

"No truer words have ever been spoken than 'this column will prosper in proportion to the effort we put into it.' You know it and I know it from past experience."

"I was sorry to have missed the Annual Banquet, but this took place while the Motor Boat Show was on in New York City, and as we are in the marine line of work and it is where we get our bread and butter, attendance is compulsory. You probably saw in the papers something about the show in which were exhibited rum runners and bathing beauties, in addition to the regular product."

"Saw Walter Weeden who happened to drop in to the Show. He is now located in Philadelphia with some floor covering concern. Has charge of the promotion and sales work. Walter and I, about ten years ago, as you probably recall, were officers together in the Massachusetts Coast Artillery Corps."

"Another little fellow by the name of Stone dropped around. Bill is County Engineer Officer for some county down on Long Island. He has charge of the cement road construction. Bill says he has gained fifty pounds, so you can see he is a pretty big fellow by now."

"You speak about a three-day reunion down on old Cape Cod. A number of years ago, I believe the class tried to pull

a Twenty-year Reunion and I bought a new pair of white flannel trousers for the event and I was the only one that showed up, so this time, there will be nothing but old clothes worn.

"Stanley Fitch dropped me a line the other day about our Twenty-fifth Reunion and I made a proposition to him which we ought to be able to put over. The motor boat papers have been filled with pictures of a new boat that Cliff Leonard is having built, about 130 feet overall, powered with a Diesel engine, and which he proposes to use in inspecting oil fields in South America. I think we ought to be able to persuade C. M. that it would be a wonderful thing if we could have our reunion held on board his boat. If it is designed to travel to South America, we, at least, ought to be able to get a few miles off shore somewhere around this vicinity.

"Your speaking of drill debts calls to mind the old major of the battalion, Fred Foye. Fred was major during the Boston Police riot in the 14th Infantry and commanded the battalion in which the company that I commanded was attached.

"I see by the designation that you are occupying Room 1-272. Some room!

"P.S. Here's another item that I forgot to tell you about. Christmas I received a card from Emil Vogel, signed Emil, Mrs. and Emil, Jr. Apparently, Emil, Jr. arrived some time this year, because he was not on the card last Christmas.

"I just met Commander Duncan of the Navy Department, who is stationed at Newport, at the Rotary Club luncheon this noon. He tells me that A. C. Redman is in his office as structural engineer. Some time ago, Redman lost his leg in tunnel work in New York City."

Somebody page Cliff Leonard! A picture of his sumptuous sea-going hack appeared in the June *Yachting*, and if it can't get outside of the three-mile limit, then there is nothing built that can. The idea ought to appeal to everybody but Leonard. What say you, Cliff?

Ken Seaver writes from Pittsburgh, Pa., where he is the General Sales Manager of the Harbison-Walker Refractories Company. It seems that Ken started in at the bottom in 1903 and now is referred to as the foremost authority on Refractories. Anyone who saw him at the Summer Camp in 1898 pitch a nine-inning game with one arm swollen to twice its natural size by sun poison, could never doubt that Ken would actually pitch himself into first place. Listen to Ken: "Yesterday while perusing the February number of The Technology Review, I was hunting under the news from the classes for something from 1900 and to my great joy, found your editorial. I cannot tell you how pleased I was to read it, and learn that you are now our permanent 'Sicity.'

"You know the effect it has upon aspiring youth when it beholds its name in print, and the fact that you have actually stated your wish to hear from some of us is the only excuse for this my first offense in communicating with a Class Secretary. Like some of the rest of us possibly, I am just arriving at that stage when we are waking up sufficiently to realize that nearly twenty-five years ago we had some mighty good friends and that if we don't hustle up and get acquainted with some of them again, it will be a little late.

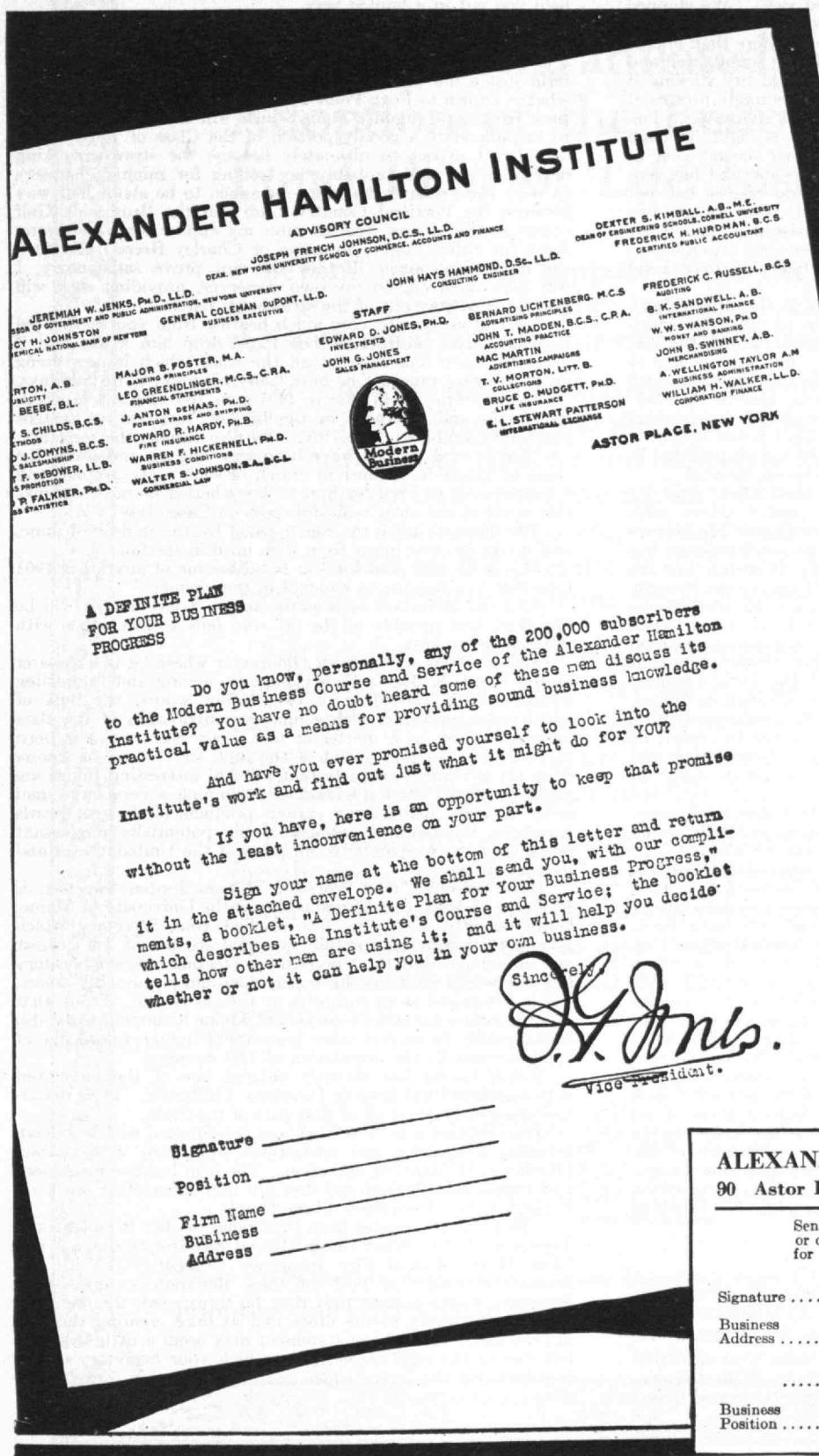
"Here in Pittsburgh there has always been a little corps of the faithful endeavoring to instill life into the corpse consisting of the vast majority of us, and of this majority I must admit that I have been probably in fully as comatose a condition as any. Recently, however, some ten or fifteen of us have been getting together every Friday at the Chamber of Commerce for a little luncheon, and as far as I am concerned personally it has given me a world of pleasure. You will note the 'us' part of the above, but it applies to me personally only during the last few weeks, and I have now quite assumed myself to be a regular customer.

"A couple of weeks ago we had a most enjoyable little dinner when Denison was here. I feel most strongly that he will do the finest sort of work among the alumni, if the alumni will give him half a chance.

"At one of these luncheons two weeks ago, much to my surprise I met John Brownell and we spent a couple of hours talking over old times. John is doing wonderfully well in his business now located in New York, and is just as full of pep and energy as ever. The best thing about John is that he is just the same as ever.

"Once in a great while I see Bert Blair and am always torn with conflicting emotions when we get together; on the one hand is the infinite pleasure of meeting and renewing our old-time associations, but on the other, the jealousy which will not down when I remember the midnight oil I had to burn in order to get 50% of the same task performed which Bert had finished up in half the time, and I was forced to continue to the accompaniment of his raucous snores, for he could retire at a seemly hour even though afflicted with very much of a dullard for a room-mate.

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1900 Continued

"Bert, as you probably know, is located in New York and is without question one of the most brilliant patent attorneys in that tight little town, just as unassuming as ever, but heaven have pity on the opposition when he gets in action, and I have had the pleasure of seeing him in action."

"Steve Badlam is just outside Pittsburgh at Bridgeville, and I have been intending to get in touch with him for many a month. I think it will ultimately happen. My intentions are surely good. I am just beginning to find we had some mighty fine men at Tech."

"As for my own uneventful career, the last twenty-two years of it have been spent with the Harbison-Walker Refractories Company (manufacturers of fire brick and such). We shipped last year some thirty thousand odd carloads and really are the world's largest producers of refractories, being more than double the size of the nearest competitors. The above sounds well and inasmuch as it represents facts, you won't mind my sticking it in here. Strange to say, the company has seemingly prospered in spite of the admittedly severe handicap of giving me a job."

"Four children, ranging from Tom who is eight, through three girls, the oldest twenty and now in her second year at Wellesley, serve among other things to make me find life very well worth the living. And above all, Mrs. Seaver has not seemingly yet discovered the error she made some twenty-two or three years ago in the selection of a husband, although my friends have advised me with what I consider very brutal frankness that she did make such mistake. Be that as it may, I did not make one."

"We are living just outside Pittsburgh in the little suburb Oakmont, our place being plump on top of the hill, which location I am positive, judging by recent winds, affords the best ventilation to be found in Pennsylvania. We have plenty of room there, where the children can play as they will and with perfect safety. Incidentally, it is right next door to the Oakmont Country Club, of which you may have heard as producing some real golf champions. What you haven't heard is that it has produced some of the worst dubs that ever dug turf. In the latter class I am acknowledged as a charter member."

Stanley Fitch still continues as the foundation prop for Patterson, Teele and Dennis, Accountants and Auditors, with offices at 131 State Street, Boston, and other math laboratories all over the U. S. Stan ought to be a good publicity man but he says he takes off his hat to Wastcoat. It seems that the latter was asked by the 'Stute to ship one of his famous Paragon Reversing Gears to the Institute Boat House on the Charles to be used in refitting the flagship of the Tech Navy. Dick not only put the order along in record time, but sent a receipted bill for the job. Result: letters of thanks from prominent officials and a neat space in the columns of *The Tech*. Stanley gratuitously audits the books of the various Institute activities, but unadvised by his publicity man as to the proper procedure, refused to send any bill at all. Result: a chance to repeat, no publicity, and an interchange of greetings between Stan and Dick in which the Secretary refuses to say which came off second best. They are both a credit to the class.

Among the book reviews appearing in *The Nation* for January is one by Lucy F. Smith on a recent Houghton-Mifflin publication, "Civilization and the Microbe." Arthur I. Kendall, VII, is the author of this volume and he has succeeded in writing a most absorbing story of the history of bacteriology. It is non-technical and presents to the average person an entertaining outline that makes it a most readable and informing book. Kendall is Dean of the Medical School at North Western University, Evanston, Ill. (This notice will cost you a letter, Kendall.)

The happiness of the Secretary derived from the various recent letters is clouded by the news that again the class loses a loved and honored member. Arthur F. Buys died of heart disease on February 4 at his home at Nyack, N. Y. He was a partner in the firm of Hulton and Buys, architects at 103 Park Avenue, and is credited with many of the beautiful show estates along the Hudson River Valley. A great lover of art in all forms, Buys was active in amateur theatricals and an authority on Shakespearian drama. He was director of the Little Theatre's Committee of the New York Drama League and a member of the National Arts Club. He is survived by his wife, Lydia K. Buys, and one son, Cornelius K., to whom the heartfelt sympathy of the class is given.

1901

ALLAN W. ROWE, *Secretary*, 295 Commonwealth Avenue,
Boston, Mass.

V. F. HOLMES, *Assistant Secretary*, 131 State St., Boston, Mass.

When our class left Technology, its destinies were entrusted to the able and competent hands of one Albert Willis Higgins, familiarly known as Al. Economic exigencies, however, deter-

mined the exodus of little Albert from the pleasant oases of Boston to the insalubrities of that town known locally as P'tucket. Tarrying here but for a brief space, and out of touch with what is frequently called in carpentry criticism the "Boston crowd," little Albert resigned his secretaryship, thereby instituting that rapid progression of class mentors which has involved in the person of the present scribe. And lo, after many years of silence comes the following:

"Having read several of your passionate pleas for news and being especially interested in an item in the January Review, which answers the question I have asked several times while in Boston in the last few months, thought I might be able to help you out in a limited way.

"For several years I have tried to find out the location of Frederick W. Freeman, and after all this time I find that he is a close neighbor, as this last summer I bought a 120 acre rock farm just a few miles the other side of Falmouth Foreside on what is known as Fogg Point and on which I am at the present time erecting a summer home which will be of sufficient size to accommodate a goodly portion of the Class of 1901. Incidentally, I expect to ultimately become the strawberry king of Maine and will probably be looking for mining engineers to work the Feldspar deposits. I happen to be about half way between the Portland Country Club and the Brunswick Golf course, so that I now wish to enter my application as a runner down for either Freddy Freeman or Charley Record and they can name the course. If this does not prove satisfactory, I will take them on, on my own preserves, providing they will guarantee to stay out of the strawberry patch.

"Would appreciate very much hearing from you as to Fred Freeman's post address so that I can drop him a line and if necessary have him superintend the work which is now going on on Higgins' ranch, if he hasn't anything else to do Sundays.

"At any rate, I will offer to 1901 men, free clams, free wood, free baths and anything in the line of Western or Eastern hospitality combined. This invitation also includes the Secretary.

"For several years I have been traveling up and down the coast of Maine in summer in search of such a playground, and I will leave it to Fred for him to say whether or not he thinks this is one of the most beautiful spots on Casco Bay.

"We hope to have the ranch going by the middle of June, and it will be open house from then until in the fall.

"I will be very glad for you to advise me of any other 1901 men that you happen to know of in the vicinity."

After an invitation such as the above, I feel that it will be the ill-advised member of the '01 who fails to foregather with the strawberry king.

Arthur Davis writes from Gloucester where he is Treasurer of the Frank E. Davis Fish Company, a long and interesting communication consisting of twenty-four words, the bulk of which were concerned with a modest contribution of the class finances. Now, as a matter of fact, your Secretary was born in Gloucester — "and proud of the fact, sir" — and he knows from his infrequent contacts that a lot of interesting things are going on there. Arthur's concern is running a very large mail order business, distributing various products of the sea (pearls I believe, are omitted because of the potentially unpleasant reaction of the recipients) to all parts of the United States and its possessions.

Billie Sweetser, now Professor William Jordan Sweetser, is Professor of Mechanical Engineering at the University of Maine. Quite recently a clipping has reached your Secretary which gives a brief although carefully censored account of Bill's career and announces that the University is erecting a new laboratory building which will house his department and presumably others. Bill is recognized as an authority on the gas engine. From what your Secretary knows of that part of Maine he undoubtedly also could qualify in several other branches of human knowledge of great interest to the population of this country.

Ralph Loring has recently entered one of the large and active architectural firms in Pasadena, California. Their activities apparently cover all of that part of the State.

John Perkins is in New York and is connected with a concern handling ice-making and refrigerator equipment with Carbon Dioxide as the basis of operation. The firm handles machinery and makes installations and they are now completing work on a plant in the Concourse Plaza Hotel.

Charlie Stover writes from Providence as the President and Treasurer of the "What Cheer Mutual Fire Insurance Co.," and "The Hope Mutual Fire Insurance Company." With the occult significance of both of these designatory terms your Secretary would suggest that they be transposed, the one then leading potentially to the other and at once creating the first in repetition. The above statement may seem a little involved but due to the rigid censoring to which your Secretary's copy is subject by the junior editor of this publication, only veiled illusions can be made.

The Class of 1924

is to be Congratulated on the Adoption of the Endowment Fund Plan of Life Insurance

Beyond the specific purpose of this decision there is a great stimulus to the individual alumni and the substantial friends or former students of M. I. T.

No one can measure accurately the effect of the 1924 action—following a similar plan of the last year's graduating class. Directly and indirectly Technology will unquestionably receive additional gifts, pledges, insurance endowments, etc.—simply because those men nearest to the present M. I. T. are doing their part for constructive future development.

Caring for the future is the fundamental reason for life insurance. For over sixty years the John Hancock organization has emphasized a conservative present appraisal of future value, whether of an individual, corporation, or institution.

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1901 Continued

Harry Dart writes me from Hartford taking exception to certain of my statements and saying that I slandered him that I didn't quote him exactly. Anyhow, to clear the decks for action and free him from any possible stigma, between ourselves I think Harry confuses the significance of "local import" with "local option." I quote him at length:

"The business of this Company might well be termed 'Engineering Insurance.' Starting nearly sixty years ago as the first steam-boiler insurance company in the United States, the field has been extended as required by conditions so that we now afford protection against damage to life or property due to the explosion of steam boilers and other pressure vessels of all kinds or due to the explosion of fly-wheels, steam turbines and other machines which may be disrupted by centrifugal force. Several years ago the fly-wheel line of insurance was extended so as to cover against the breakdown of any part of a steam engine and about two years ago we began to insure all kinds of electrical machinery against breakdown. All of our business is based on the theory that accidents can be prevented by means of proper inspections; if we fail to prevent an accident, then we have to pay an indemnity. In our own lines of insurance we do about as much business as all of the other companies combined. So much for 'local import only.'

"I can't tell you anything very definite about my own work. I still have the title 'Superintendent of Engineering Department,' but it doesn't mean anything, as I find that I am working more and more on the underwriting end of the business. I was on the committee which investigated the question of electrical machinery insurance for the different companies interested and which formulated a premium rating scheme together with standard policy provisions, etc. This was a very interesting piece of work, as the subject was entirely new in this country and we spent about two years at it. I am now a member of a similar committee which is investigating the subject of steam turbine insurance with special reference to the large units now being installed and with a view towards possible rate revisions and broadening of coverage. I am also engaged in other work of a special character and am thinking of asking for a title of 'Handy Man around the House,' which would be more appropriate."

Perk Parrock has blossomed out in an entirely new rôle and one that I think frankly holds out the greatest possible hope to the members of the class who knew him in his less regenerate days. Perk recently attended a meeting of the Varsity Club of which he is a member and insisted on acting as referee for a prize fight which took place at that time. To those of us who remember tenderly his slender, girlish figure, replete with grace, the spectacle of Perk stripped to the buff perspiring freely and interrupting clinches with a vigor which both contestants felt was moving. Thought compels your Secretary to state that the efficiency of his functions makes it evident that he must have had vast experience in this particular field.

Phillip W. Moore has moved to an address which he gives as 1030 Private Road, Hubbard Woods, Illinois. With that number it can't be so damn private but this is possibly only a relative statement.

George Fisk has also moved and is now to be found at No. 20 in the Municipal Building in New York City.

Members of the Class of 1901, there is talk or rumor of a possible get-together gathering of Technology alumni—a reunion in brief—in the late spring or early summer of 1925. Nothing has been settled as yet but as is usual with most Technology matters, "a competent committee is engaged upon the problem." Should this proposal come to fruition (and there seems to be a decided want for it) your Secretary is giving this advance notice in order that all members of the Class of 1901 may begin to save their pennies either personally or vicariously with an eye to attending the gathering. It is no breach of confidence to say that the last time Technology had such a gathering the well-known class, of which you, reader, are a member, won laurels for itself by the distinguished and massive representation of its members and the significant tone which it contributed to the meeting. It will be our Twenty-fourth Anniversary, an occasion hallowed in song and story, the outstanding point in the dreary waste of those gray years that follow severance of connection by what is known by the scenario writer as Alma Mater.

See to it that you, in your individual capacity, make this proposed occasion one that will stand out in the memory of every policeman and cab-driver as well as the other municipal authorities for the remainder of their lives.

1902

FREDERICK H. HUNTER, *Secretary*, Box 11, West Roxbury, Mass.

BURTON G. PHILBRICK, *Assistant Secretary*, 276 Stuart St., Boston, Mass.

The New York classmates pulled off a most successful Ladies' Night on the evening of Saturday, February 9, with a dinner

and dance at the Divan Parisienne, 17 East 45th Street, the attendance (counting only the men), being larger than any previous affair which the class has ever staged in the big city. Vice-President Hammond and Bob Baldwin were the Committee in Charge of Arrangements, with Fred Mathesius, Art Committee. Entertainment was furnished by Ed Brown's Orchestra and Colored Entertainers, and other cabaret artists. Several stunts were pulled off by the Entertainment Committee, including a raid by an alleged revenue officer, which caused temporary consternation. The classmates present were given rising introductions to the ladies who had previously known most of them only from hearing their husbands speak of them; then the ladies, in turn, were given rising introductions to the gentlemen. Elaborate propaganda and programs were put out by the Committee.

Those present were Mr. and Mrs. Carl Allen, Mr. and Mrs. Bob Baldwin, Mr. and Mrs. Ned Baker, Mr. and Mrs. Jack Fruit, Mr. and Mrs. Lester Hammond, Mr. and Mrs. August Hansen, Mr. and Mrs. Bert Hathaway, Mr. and Mrs. George Mather, Mr. and Mrs. William Matthies, Mr. and Mrs. Frank Montgomery, Mr. and Mrs. Joe Philbrick, Mr. and Mrs. Bobby Pope, Mr. and Mrs. Clyde Place, Mr. and Mrs. Charles Tolman, Fred Mathesius (whose wife was prevented from attending by illness), and Dunc Franklin, (who has not yet taken unto himself a wife).

The room was decorated with class colors and the big '02 banner, and silver gray balloons with "M. I. T. '02" in red letters. Telegrams ascribed to Ken Lockett and the Class Secretary were read by President Monte. At a brief business session during the evening, Baldwin was chosen Vice-President for New York, to succeed Hammond, who declined to serve another year. The affair was a great success and reflects much credit on the Committee. To quote one of the classmates who had not been at a class gathering for several years, "You won't have any difficulty getting the bunch out again on the first intimation that another such affair is being planned." Further details of the joyous occasion will appear in the next issue of the class "Retort."

Norman Borden has sold his interest in the Borden & Howard Co., of Woodstock, Vermont, and is going back into the Army. His address until June 1, is Lieut. Col. Norman E. Borden, U. S. Infantry School, Fort Benning, Ga.

Dennie, the indefatigable Secretary of the Alumni Association, has been visiting many local Tech clubs during the winter and reports meeting a large number of '02 men, particularly Arthur More at Rochester, Edson Pollard at Niagara Falls, (Pollard is President of the local Tech club), Frank Robbins and Farley Gannett at Harrisburg, (Gannett is Secretary of the Tech Club there), and Paul Chalifoux at Birmingham, Ala.

Plans are being made for a Ladies' Night in Boston this spring. The details will be sent out by local notice.

1903

CHESTER S. ALDRICH, *Secretary*, 10 Beaufort Road, Jamaica Plain, Mass.

GILBERT H. GLEASON, *Assistant Secretary*, 25 Huntington Ave., Boston, Mass.

We have a report from Walter H. Adams, member of the Regional Committee for Southern California, in which he tells about a meeting of the local Tech club which was attended by ninety-five men, of whom the following were '03 members: W. H. Adams, A. E. Place, F. D. Rathbun, G. H. Clapp, T. H. Hamilton, R. R. Newman and George MacDonald.

What are the other members of our Regional Committee doing? The Secretary will be very glad to hear from them.

Robert Livermore, '03, has formed a partnership with W. Spencer Hutchinson under the name of Hutchinson & Livermore, 201 Devonshire Street, Boston, Mass., to continue as consulting mining engineers, the practice established and conducted by Mr. Hutchinson.

G. F. Loughlin has been made acting chief of the section of metalliferous deposits, division of geology, in the U. S. Geological Survey.

Clarence M. Joyce, '03, formerly a Medford boy, has recently been elected to the school board in Leominster, Mass. In a recent copy of the *Leominster Daily Enterprise* he is spoken of as "a product of the Medford public schools and a graduate of the Massachusetts Institute of Technology. As chief chemist of the Viscoloid Co., and previously in Arlington, N. J., he has been responsible for the management of large and important units in big and up-to-date factories and his experience and education have given him a thorough grasp of the requirements of modern school systems."

Raymond M. Hood, native of Pawtucket, and noted for his taking of the first prize for the Chicago Tribune Building in the international competition held last year, is the designer of the

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1903 Continued

new American Radiator Company Building, now nearing completion in New York City, the daring design of which has already attracted much attention and provoked wide discussion in professional and business circles. Faced entirely with black brick, believed to be the only thing of the kind in the country, the building is trimmed with golden colored stone and the whole worked together to give a rich black gold decorative effect. It rises 350 feet above Bryant Park, and overlooks the New York Public Library from West Fortieth Street near Fifth Avenue. It will house the executive offices of the American Radiator Company, including the Metropolitan sales branch and will contain show rooms on the ground floor. The building will be ready for occupancy on May 1. Seventy-seven thousand square feet of floor space is provided, much of which will be rented as offices. Mr. Hood was born in Pawtucket, forty-two years ago, was graduated from the Massachusetts Institute of Technology in 1903, and then spent six years abroad receiving a diploma from the Ecole Nationale des Beaux-Arts. Last year, as an associate of John M. Howells, he designed the building of the University of Brussels, which is being given to Belgium by the Commission for Relief in Belgium. One of his best works is the Hotel Du Pont, Wilmington, Del. For the past four years Mr. Hood has been Chairman of the Committee on Education of the Beaux-Arts Society.

1905

ROSWELL DAVIS, *Secretary*, 19 Thorndike St., Beverly, Mass.
S. T. STRICKLAND, *Assistant Secretary*, 26 Pemberton Square, Boston, Mass.

We beg to remind the forgetful that class luncheons are held regularly the second Friday of each month at one o'clock, at the Boston City Club. The attendance has been quite regular, but there is room for more.

C. E. Atwood, with a new address, 22 Livingston Avenue, Schenectady, N. Y., writes: "After operating a public utility in Santo Domingo, West Indies, during the last year of the War, I returned to the United States and took charge of a New York City sales office. For the past two years, I have been with the Adirondack Power & Light Corp., Schenectady, engineering 110,000 volt transmission lines and substations, helping to develop this important region and link it to the rapidly growing

Superpower System. The last line, now nearly completed, will make possible the interchange of power between Boston and Syracuse, over lines of the New England Power Co., and the Adirondack Power & Light Corp.

"This is interesting work, especially as it means living in this beautiful Adirondack region within easy automobile distance of both the Adirondack and Catskill mountains, where all roads are good all the time."

Ray White, formerly with the Norton Co., Niagara Falls, N. Y., has crossed the suspension bridge to Hamilton, Ontario, to sign up with the Abrasive Co. of Canada, Ltd.—Fred H. Andrews is reported to be in Puerto Castilla, Honduras.—Howard Cowper writes a brief note, so brief there is nothing to quote. From the letterhead we observeth at he and T. Green are respectively Treasurer and Vice-President of the Hydro Construction Co., 1010 Mutual Life Bldg., Buffalo, N. Y. They seem to specialize in concrete construction.—Roll Prichard has been elected President of the New England Association of Gas Engineers. For his inaugural address, he read a paper on "Gas meters that it won't take a college education to read." How does he know?

We have been chasing Harry Nabstedt for months, only to find him, as the Secretary of '01 would say, locked up in P. O. Box 210, Bristol, New Hampshire. He writes:

"The address given above is my temporary address. No. 1115 Tremont Avenue, Davenport, Iowa, serves as a permanent address, while any letters addressed to the Amburser Construction Co., Grand Central Terminal, New York City, will be forwarded.

"We are finishing up a piece of hydro-electric construction at this place and should be out of here in two months. We have no idea right now where we go to next. Have been with the Amburser people practically all the while since leaving Tech and have been pretty well over the United States. This dam is No. 14. The work has been very interesting."

Another fugitive has decided to give himself up. Harold Mitchell, who was almost in Fred Poole's class, admits that he is Superintendent of Maintenance and Power, Erie Works, General Electric Co., Erie, Pa. He writes:

"Without entering into any competition with King Tut, I decided to resurrect myself, and forthwith dropped a hint of my intention to the Registrar, who has very kindly consented to

1905 *Continued*

unleash his hounds of publicity on my behalf. The results to date have been very gratifying and I have no doubt that I will be on the front page as soon as the Teapot Dome caves in.

"Regarding my recent history, — well, I have been able to keep a couple of laps ahead of the Sheriff when hitting on all six. Have not done any engraving on tablets of stone with a hammer.

"I started in on the C. E. menu, but never went beyond the soup course. This kept me busy for six or seven years, during which period I 'associated' with J. G. White & Co., and the State Water Supply Commission of New York. I tried to feed gum drops to the Eskimo in Hudson Bay for a year or two, also attempted to teach the young idea how to shoot at Union College.

"I have been located with the General Electric Company in Erie, Pa., since the start of the Erie Works. Modesty and time prohibit me from giving my history here. However, if you are interested in Power Plants, Factory Maintenance or kindred troubles, I shall be pleased to sympathize with you.

"I forgot to mention that you may include in my record the usual standard information. 'Married — has life insurance — has investigated the stock market — claims to get twenty-four miles on a gallon.'

We must admit we did not know that George Hool was writing textbooks. He has just published "Stresses in Framed Structures," 620 pages, \$5.00 net, a thorough, practical treatment of the subject. And he has at least three other books of the same average price to his credit. Doc Lewis, too, has recently gotten his name on the back of a book, "Principles of Chemical Engineering," also \$5.00, of which Dr. Walker is joint author. Remembering our near escapes in Freshman Chem, we referred the book, for review, to one who insists upon anonymity. He reports: "There are as many as sixteen other Lewises so prominent in the chemical world that they all write publications and give away free all details of their discoveries and contributions, but none of these has the effervescence displayed by W. K. He is high in volatile matter. To go back only to 1920, we note that he had five articles mentioned in the Abstracts Index that year, four in 1921, and so forth. He leads the field of Lewises, which is an honor not to be frowned upon by chemists or even by scientists." Just what this has to do with the book we do not know. Perhaps it's an insinuation that

Doc will give no more free rides, but operate on the Pay-As-You-Enter plan. We doubt it.

A bit envious of our other scribes, Andy Fisher gets into print with a letter to the Boston *Herald* from which we quote:

"By keeping world leadership in our own hands we attract capital and labor from other countries. We make our slogan, 'Equal justice to all, special privilege to none.' We perfect democracy, which means a square deal to every human being. This is no idle dream. Every country trusts America. We showed our hand in the World War. Let us make America strong, always ready to fight when the principle of justice to the individual is at stake!"

With some effort, we conclude that this is Andy's voice raised against the League of Nations, but if anybody can discover that there is any point to the letter, we shall be glad to hear about it. Most anything serves to make publicity for a budding politician.

Our next is from Joe Daniels, still a scientific king, Professor of Mining Engineering at the University of Washington.

"As you know, I have been on the coast for twelve years holding down a chair at this institution. The chair is highly polished and sometimes I think I am too. Incidentally, the years have been very kind to me in many ways and I have never regretted coming to Seattle. Occasionally, I see an '05 man, but the instances are so rare that they stand out as red-letter events.

"Just at the moment, a change in my affairs is coming about, which may be of some interest. For many years, there has been a great deal of discussion about the possibility of establishing an iron and steel industry on the Pacific Coast. Many investigations have been made, but no conclusive answer obtained. Some local business men are reviving the matter in connection with its relation to the city of Seattle and I am going to spend a year for them looking into the matter. In order to do this, I am taking a leave of absence, beginning April first, but shall continue to make my headquarters in Seattle. I am hoping that the work will lead me into many pleasant places and give me a chance to make an interesting contact with the resources tributary to the Pacific Coast.

"Some years ago a number of us kept in close touch for many years by means of a chain letter scheme. During this time I collected a great many letters which some day will serve as an interesting background of hopes, aspirations and accomplishments of certain Course Three men. When we have our Twenty-fifth Anniversary Reunion, I hope to be present and read some of these letters to the class. I therefore delegate you to put my name down as one of the speakers on that occasion."

The steel business would seem to be a great opportunity for Joe and we wish him all success. We have reserved a seat at the head table and he will be called upon to read those letters. But we claim the publication rights, including that of translation into the Scandinavian. Have other groups written similar letters? It's not too early to begin digging them out.

1907

BRYANT NICHOLS, *Secretary*, 2 Rowe St., Auburndale, Mass.

HAROLD S. WONSON, *Assistant Secretary*, W. H. McElwain Co., Manchester, N. H.

A new address, 6357 South Laflin Street, Chicago, Ill., has been received for Joseph M. Baker.—Flint C. Elder is a metallurgist with the American Steel and Wire Company, Frick Building, Pittsburgh, Pa.—A son was born on January 29, 1924, to Professor and Mrs. Ralph G. Hudson, this being their fourth child. Ralph is Associate Professor of Electrical Engineering at Tech.—The engagement is announced of Miss Mary C. Moore of Somerville to John T. Mahar, who lives at 68 L Street, South Boston, Mass.

1909

CHARLES R. MAIN, *Secretary*, 200 Devonshire St., Boston, Mass.

GEORGE A. HAYNES, *Assistant Secretary*, 186 Lincoln St., Boston, Mass.

The Secretary emphasizes the fact that the Fifteenth Reunion of the class is swiftly approaching. The place is to be Powder Point Hall, Duxbury, Mass., and the time, June 20-22 inclusive. Further details will appear in a forthcoming issue of The Review. Meanwhile, if any member of the class has some suggestions to offer, on the conduct of the Reunion or the features it should contain, please by all means make haste to write to Henry K. Spencer, who is chairman of the Reunion Committee. His address is in care of the Blanchard Machine Company in Cambridge.

Watch the next Review carefully. It will contain full information.

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1911

ORVILLE B. DENISON, *Secretary*, Room 3-207, M. I. T.,
Cambridge A, Mass.

JOHN A. HERLIHY, *Assistant Secretary*, 588 Riverside Avenue,
Medford, Mass.

All of you will realize what a joy it is for me to be able to include the following clipping from the *Vancouver Sun* for December 10, 1923, regarding our late beloved J. D. MacKenzie. It was thoughtfully sent in by Mac's mother, Mrs. M. H. (Maude Dunlop) MacKenzie from her home at Baddeck, Cape Breton.

"The Leonard Gold Medal for the year's best paper on an engineering subject has been awarded posthumously by the Engineering Institute of Canada, to the late Dr. J. D. MacKenzie, former head of the British Columbia office of the Geological Service of Canada, it was announced yesterday. The award was made for Dr. MacKenzie's paper on 'The Coal Measures of Cumberland and Vicinity,' which he presented before the annual meeting of the British Columbia division of the Canadian Institute of Mining and Metallurgy in February, 1922.

"That the award should have been made after Dr. MacKenzie's death is considered to be a higher honor to his work than if it had been given in life.

"The medal, which is now being struck, will be forwarded to Mrs. MacKenzie, the geologist's widow, who accompanied Dr. and Mrs. S. J. Schofield to Hongkong, China.

"Information regarding the award was received by H. Mortimer-Lamb, Secretary of the British Columbia division of the C. I. M. M. from the Secretary-Treasurer of the Dominion branch of that organization. Such an award is made each year for the outstanding treatise on some phase of engineering.

Dr. MacKenzie's paper was recognized on first publication as one of unusually noteworthy character. The geologist, who had served brilliantly overseas, died under an operation last winter in a Montreal Hospital, where he had gone from Vancouver to receive treatment for a wound sustained at Amiens in 1918, while leading his company in action."

Once again, it becomes my sad duty to remind you that the phrase "Write to Dennis" has not, as would almost seem apparent, been relegated to the scrap heap, but it must be considered

stronger than ever because since writing the last notes a month ago I have had no correspondence from classmates except post-card replies concerning a class dinner on the evening of February 26.

We had a small but enthusiastic dinner meeting in the Faculty Dining Room of Walker Memorial, at which we were favored with the presence of Dr. Davis R. Dewey, ranking member of the Faculty in point of service and head of Course XV, Engineering Administration, the only new course to be established since we left Technology in 1911. Dr. Dewey, whom we all remember as Head of the Department of Economics and History in our day at Tech, gave an intimate and interesting sketch of the development of the idea that a course of this nature was needed to train Tech men for administrative and executive positions, and outlined in detail the scope of the work and the ground covered.

The course in Engineering Administration is designed for students who wish to combine a knowledge of engineering principles with business studies, he said. The older courses of the Institute are chiefly concerned with the physical and natural sciences and their application. They contribute to the discovery and use of new forms of wealth and new methods of production. But with this increase in productive power, new problems in the conduct of business have arisen. Production has outrun efficient administration.

In 1913, a committee of the Alumni Council made a survey of instruction given in American colleges in business administration, commerce, finance, and kindred subjects. As a result of this investigation, it was recommended that "a new course be established whose aim shall be to furnish a broad foundation for ultimate administrative positions in commerce and industry by combining with a general engineering training instruction in business methods, business economics, and business law." In accordance with this report the Faculty, at the request of the Corporation, established the course in Engineering Administration, graduating its first class in 1917.

In order to meet the varying interests and aptitudes of students, opportunity is given to select one of three groups of engineering subjects: (1) Civil Engineering; (2) Mechanical and Electrical Engineering; (3) Chemical Engineering. Each of these groups of studies is combined with courses in economics and business, including such courses as Economics, Accounting,

1911 Continued

Cost Accounting, Industrial Organization, Banking, Statistics, Securities and Investments, Business Management and Marketing, Business Law, and Industrial Relations.

The course graduated its first class in 1917, the class numbering thirty-seven men, or 11% of the total graduating class. The course has increased in size since that time, until last year it was the second largest course in the Institute, being exceeded only by the electrical engineering students. The 1923 graduating class contained one hundred and seven men in this course, or 20.4% of the total graduating class.

Prior to Dr. Dewey's interesting talk and the discussion which followed, I told the boys of the delightful renewals of acquaintanceship I was having with the 1911 men as I visit the local Technology clubs throughout the country, and also showed the film of Tech movies which I am showing at the meetings of the various clubs which I visit.

The latter part of the evening was devoted, as usual, to bowling, and Jack Herlihy and his quartette of associates certainly bowled all around the four classmates who, with me, entered the lists.

Ned Hall, Ted Van Tassel and Emmons Whitcomb were also present at the dinner but, being suburbanites, left before the bowling.

Our old friend, C. P. Kerr, II, joined the Mechanical Engineering Department of Stone & Webster here in Boston the latter part of January and had planned to attend the 1911 dinner but unfortunately was called to Akron, Ohio, on a business trip just prior to the affair. Oberlin S. Clark, II, a pretty regular attender, was prevented from attending, as he is just recovering from an attack of la grippe. He reports that he has been very busy, working nights and Sundays during December and January, and has a big volume of work under contract for the spring. He is certainly making a big success of his contracting business. H. L. Robison, I, very often comes down from Worcester to the dinners, but reported that he was "busy helping the Worcester County Association Executive Committee raise a Scholarship Fund and going slow at present on outside functions."

From January 30 until Washington's Birthday I spent my time visiting the Technology clubs in the South and Southeast, and again it was delightful to run into a number of 1911 friends. On the way to Jacksonville, Florida, the train stopped

a few moments at Richmond, Virginia, so I got out and had a nice 'phone chat with Don Frazier, II, who is busy in the insurance game there. He is anxious to establish a local club for Richmond and vicinity and I am planning now to drop off there for a day following the eleventh Annual Conference of the Association of Alumni Secretaries, which I expect to attend at the University of Virginia, Charlottesville, Va., April 10, 11 and 12.

In Jacksonville, I met no 1911 men, but in Atlanta, Ga., I had a nice telephone chat with M. Hubert Judd, I, who is in the textile industry at Dalton, Ga., about eighty miles from Atlanta. In Birmingham, Ala., I met no eleveners, but in New Orleans, I met Lee R. McMillan, IV, who is a real estate operator in that southern city.

Coming North on the return trip, I met no classmates in Louisville, but ran into three good friends in Washington: Pete Gaillard, VI, who has left the service and is now with the National Mortgage & Securities Company; C. L. Ofenstein, I, who is in the Bureau of Aeronautics, Navy Department; and M. R. Thompson, XIV, who is at the Bureau of Standards. I learned from Thompson that P. V. Wells, VIII, for many years with the Bureau of Standards, has recently gone to Pyralin, N.J., where he is chief physicist for the E. I. du Pont de Nemours Company.

My last stop was Baltimore and here, as in the previous one-day stop, I had dinner with Lloyd Cooley, X, and his wife. Lloyd is with the U. S. Industrial Alcohol Co., and apparently married life is more than agreeing with him. I also ran into two good 1911 friends, both of whom are Professors at Johns Hopkins University, M. W. Pullen, who is in the Electrical Engineering Department, and H. W. Waterfall, II, who is in the Mechanical Engineering Department.

I expect to spend March and early April on a trip to the Pacific Coast and am looking forward to further renewals of acquaintanceship.

Just three words in closing — but what's the use of writing them; you know what they are.

1912

F. J. SHEPARD, JR., *Secretary*, 568 East First St.,
South Boston, Mass.

D. J. MCGRATH, *Assistant Secretary*, 17 Gramercy Park,
New York, N. Y.

Word has just been received from Harold Mabbott, now located in the Panama Canal Zone, where he has been since May, 1923. Previous to this, Mabbott was stationed at Camp Eustis, Virginia, for a year and a half. Mabbott is at the Pacific end of the Canal, in command of a company manning the submarine mines, and a six-inch Coast Offence Battery. He is also responsible for the upkeep of twenty-two G. P. F. guns, a dozen tractors, several small boats, and minor equipment. It sounds rather like an amphibious job, although there is a golf course handy and the staff officers seem to find plenty of time to cultivate it, but the line officers don't seem to have the opportunity. Mabbott's family now comprises a wife and two daughters, aged seven and five years. A snapshot attached to his letter showing them under a banana tree certainly appears attractive during this season of snow and ice in New England.

Malcolm Priest, I, is now with the American Bridge Company, at their engineering office in New York City.—W. P. Green, I, has left the Scoville Manufacturing Company, and is now an employee of the American Brass Company, still located in Waterbury, Connecticut.—Major Eddie Montgomery is stationed at Fortress Monroe, in the Coast Artillery.—Major Francis R. Fuller is now stationed at Fort Benning, Georgia.

The premier social event of the season took place at the Technology Club of New York, on January 24, when twenty-two 1912 men sat down to dinner. Bobbie Wiseman, VI, submits the following account:

"The roll call resulted in marking the following present out of a possible thirty-five, the number to whom notices were sent: Course I: C. H. Harrington, A. W. Yerance, V. G. Sloane, P. R. Williamson, H. S. Payson, and W. H. Lange. Course II: D. M. Wyman and R. M. Ferry. Course III: P. M. Tyler. Course VI: J. G. Cook, H. W. Danser, L. W. Cooper, N. A. Hall, H. H. Griffin, J. A. Applegaist, V. L. Gallagher, E. M. Mason, H. H. Brackett, and R. J. Wiseman. Course X: H. D. Mitchell and A. M. Pedersen.

"Several more promised to come but as pleasure must not interfere with business, they were unable to attend.

"Our guiding star, Dave McGrath, was conspicuous by his absence for business reasons only, as he was South on a trip, keeping the profits of McGraw Hill rolling in.

"The telegram you sent was read and we all regretted you could not be with us. We hope that at some future date you can join us. We want you to see how 1912 men in New York

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1912 Continued

stick together and enjoy talking over old times as well as news of present interest.

"Doc Sloane was the surprise of the evening. We were all glad to see him and it made us feel better to have one of our class from Boston with us. We hope that other members of the class who may be in New York will join us at these informal meetings. We ask all who happen to be in town to call up the Tech club and ask when the next meeting will be. We will have a notice on the bulletin all the time telling when we meet again. The clerk at the desk will be glad to inform you.

"The dinner was the jolliest gathering we have had yet. Interesting bits of news from various members were passed around the table. McGrath, in a letter, told of his meeting Jesse (Shorty) Hakes, Course I, in Baltimore. The latter is in business for himself in that city as 'Manufacturer's Agent.' All were glad to hear from him and wish him the best of success in his undertaking. Earl Ferry sent, through his brother Ralph, kindest regards and best wishes to all, regretting his inability to be with us.

"After we all had partaken of a very fine dinner the more serious phase of the evening was opened with suggestions for future meetings. Some wanted luncheons and dinners alternating each month. Nothing definite was decided upon, so we left the matter an open question to be decided at a later meeting. Our next meeting will be held on Thursday, February 14, and will be a luncheon.

"So many questions were asked as to what the members of the class were doing now, it was decided that each man would send in to you a news item telling what he had done since leaving the Institute. We hope that this will be an incentive to all the other members of the class to follow suit and we look forward to many interesting facts about 1912 men in the coming issues of *The Technology Review*. We all have been negligent in keeping news in *The Review*. Let each one, from now on, do his share to bring our class back into the limelight.

"Danser, who is an owner of a steamboat plying between New York and Long Branch, N. J., was most generous in offering us an outing on one of his boats any week day during July or August. This outing may take the form of just a sail down to Long Branch, which would only take the afternoon, or an all-day affair with a shore dinner at some resort on the Jersey Coast. It was decided to have McGrath appoint a committee of three to take charge of the outing and in co-operation with Danser, decide and arrange the whole affair. All were most enthusiastic over such a generous invitation, as it would help to hold us all together during the summer months. As a reward to the wives of the men who allowed hubby to stay away from home one evening, the invitation was extended to wives or sweethearts of all. One member asked if it were permissible to bring somebody else's wife. Permission was given provided he could get away with it. More information will be given on this matter later.

"Mr. Marlow, Secretary of The Technology Club, spoke to us on the coming annual dinner of the club to be held on March 7, at the Waldorf-Astoria. Many of the fellows thought they might attend. We also had a representative of the Tech Show tell us about this year's show to be held on March 18 at the Hotel Astor. It was decided that all who are going would let us know at our next meeting and we would try to get seats together.

"I tried to get Professor Wickenden to join for the evening, but he had to be out of town. He has been put in charge of a study of engineering education for the Society of Promotion of Engineering Education and is quite anxious to meet the fellows to get our views of education after being out for eleven years. We hope to have him with us at our next meeting.

"We are also going to ask Denison, Executive Secretary of the Alumni Association, to join us if he happens to be in town.

"The evening wound up with the singing of our old favorite Tech songs and we were all transported back to Tech Union days with all its joys and sorrows.

"We owe it to Dave McGrath for starting these monthly meetings and doing all the work to keep them going. They have been such a fine success, we suggest that other cities like Boston, Chicago and Philadelphia follow suit.

"I am enclosing a brief account of how I have been spending my time since graduation in 1912. I returned for the school year 1912-13 as an assistant to Professor Laws. The years 1913 to 1915 were spent on graduate studying, resulting in the degree of Doctor of Engineering (this was changed last June to Doctor of Science). From 1915 to 1917 on Electrical Research Staff worked on electrical insulation problems. Deciding it was time to sever ties after nine years of continuous attendance at the Institute, I joined the Engineering Staff of the Western Union Telegraph Company in New York. Sojourn here lasted one year when I transferred to the National Conduit & Cable Company as Assistant Wire and Cable Engineer. After about nine months, I became Wire and Cable Engineer, which position



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1912 Continued

I held until April, 1921. At that time, I became Research Engineer of the Okonite Company of Passaic, N. J., which position I am still holding down. I hope any fellows who may happen to be in Passaic, N. J., will give me a ring."

1913

FRED D. MURDOCK, *Secretary*, 30 Bartlett Avenue,
Arlington, Mass.

R. CHARLES THOMPSON, *Assistant Secretary*, 26 Cedar St.,
Watertown, Mass.

The number of replies received from the post-card mailed in January was gratifying. It takes some Billy Sunday stuff pretty often to get class news.

From Vienna I have the announcement from George Bakerman, XI, of the birth on November 7 last of Beryl Bakeman. For the third time the stork has visited the home of Hap Peck; on January 7 he left Marilyn.

Bill Herbert, IV, writes the following terse autobiography. Bill is in California. "Business: good. Married: six years. Happy: absolutely. Children: three boys—Bill, Frank, Bob, (three college educations). Play golf: no. Grey headed: half and half. Am building the home."—Edgar Menderson, II, writes: "Still busy distributing Durant and Star cars in Cincinnati and surroundings. Just came back from the Chicago Auto Show, but didn't see much new there except a few more balloon tires and four wheel brakes. Going to have our own show here next week. Nothing out of the ordinary to relate."—Now some of you fellows who think you are busy read what Effie MacDonald crowds into her short day: "I haven't anything exciting to say. I am still doing a little private work in pathology, am raising some corking good bird dogs, both setters and pointers. Then this winter I am cataloguing the Library of the Mattertuck Historical Society here. All these things in addition to taking care of a ten-room house without any help. For such things does Tech fit us coeds."—Lindsley Hall notes: "Last winter I was in Egypt as for the past four years, and had the interesting experience of working in the tomb of Tutankhamen for several weeks. This season I am again at the Metropolitan Museum in New York, and am not sorry to have this opportunity of spending a winter in civilization. I long for an old-fashioned snowstorm, for I haven't seen one for five years."—Malcolm Lewis, X, is happy to leave Hackensack, N. J. He writes: "I am leaving this address in about a week to take the job of Director, Division of Milk Control, State Board of Health, Raleigh, N. C. I expect to travel over the state pretty extensively and hope to meet up with some M. I. T.-ers irrespective of class distinctions. I hope to have a great deal of work in Pinehurst and Asheville and in the western mountains in summer."—Walter Wright Alley, IV, notes: "Still in the land of the living. Back at Architecture after giving ten years at Aeronautics. Now in Structural Division, Engineering Department, Southern California Edison Co., Los Angeles. Just getting in touch with Tech men again, as there are several in the Department. A daughter, Dorothy Hopkins Alley, born on September 11, 1923, makes us very happy, and gives me an excuse for taking up your time and attention with this card."

I do not play favorites, but must give credit where it is due. Al Brewer, III, is the old standby of the class notes. Read his nice letter: "The Chief is out, the stenog is getting her hair bobbed, and the office boy is shooting craps out in the hall, so all is peaceful and I'll proceed to flatter you' with a word or two in regard to A. F. B. As a matter of fact, I am the one who ought to be flattered. As you still see the 'Amber-

colored Texaco' still claims me as its own, though if the President were to catch me writing personal letters during office hours, I might be forced to 'testify in Washington.' Thank God some of us oil men are still pure and undefiled, also damned near broke as a consequence. I made a flying trip to the 'Stute a few weeks ago on business and had the unprecedented pleasure of an interview with Dr. Stratton. Now, do you wonder I want to tell all about myself. As for news of interest to The Review and class in general, I'm still married (to the same wife), have only one he-dividend, just three years old on February 9. Am a house-owner (and mortgage payer), have a livable job, and now and then get into the magazines, whenever they'll let me. Also intend to write a new Tech song, since talking with Doc Talbot. He's evidently forgotten all about once flunking me in Chemistry, for he was very interested in my proposed song. Who knows I may after all be a credit to ye 'Stute, even though I was a course III roughneck."—Ed Gere, XI, writes: "Just finished building the Veterans Hospital at American Lake and now I expect to go to the Cavalry somewhere, but have no orders yet. F. Charles Starr, '05, had charge of the Washington office while I was in charge in the field. Somewhat 'Techish,' what?"—From Jefferson City, Mo., Tom Lough, I, notes: "I am now residing in Missouri, and as Highway Engineer with the U. S. Bureau of Public Roads am doing my little part in the construction of roads in this state. With the aid of a \$60,000,000 bond issue recently authorized, it is hoped that Missouri will reasonably soon have a complete network of improved highways. Occasionally encounter Tech men down here, but not often."—It is hard to get news out of Stan Parker, but I have the following: "Your pathetic plea has touched my heart. I wish I had some real news to give you, but life has been more or less humdrum since last summer, so I haven't much 'padding' for your column. Am still in the steel business and meet Tech men of various classes around New England. See quite a bit of Bill Eichorn lately in Maine. Cairns, Ready, and Gustin are near me in Cambridge, so I see them now and then. Have a wife, no children, live in Watertown and am getting by fairly well. How about a class get-together soon?"—

Gazing at slush four inches deep, it is pleasant to read of C. A. Smith's surroundings. He says: "Here is some ham: paint brush thickness perhaps, but meat, anyhow. Course III, Miami Copper Co., Miami, Arizona; 1914-C. & A. Mining Co., Bisbee, Ariz. (Muck Stick); 1915-Prospecting; 1916-C. & A. Engineer; 1919-Standard Oil Co., Los Angeles. At present, in charge of Sales Department Construction in Los Angeles District, which extends from Santa Barbara to San Juan Capistrano and from the Coast to Redlands. Married in 1917 to Rose Gertrude Walker of Bisbee, Ariz., now living in Santa Monica and trying hard to keep one jump ahead of two young Hellions, aged three and four, Donald and David respectively. While I read of you people freezing to death, I pick flowers in my yard. Last Sunday I picked over two dozen roses, every hue in the rainbow, and a bouquet twelve inches in diameter of sweet peas. Home address: R. F. D. No. 1, West Los Angeles, Calif. Would be pleased to hear from any of the boys."—H. A. Burr, I, notes: "Still at the same job, but recently received a raise, so it's not so bad. We are taking in several additional men, which makes our bridge department rather large. We expect to spend about ten or twelve million this year, which means plenty to do."—Bob Lesher, I, notes: "Sorry to hear of the diffidence of the Class of '13 in regard to class notes. I'm one of the worst offenders I know. My jobs have been relatively few in number, and being unmarried, I consequently have few contributions to make. But that does not exonerate me. I have completed the analysis of

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1913 Continued

the Cape Cod Canal for the Government and have just recently returned to New York from a six-month connection with the Chamber of Commerce of the United States in Washington, where I have been engaged in analyzing certain transportation problems. I am now bending my best efforts in hunting a job in New York City. Will report my success or lack of it later."—Rusty Sage wrote the following: "Last year I left Aberthaw and became a part of the Morton C. Tuttle Co., of Boston. This necessitated a change of residence from Atlanta to my present abode in Weston. Since then I have spent a large amount of time traveling around New England and the South. Classmates and others please note. The Morton C. Tuttle Co. is interested in industrial construction. Charlotte V. Sage, '13, IV, and N. Mc. L. Sage, I, and all the little Sages are well. Hoping you are the same."—P. V. Kelly finds the climate at Birmingham, Ala., to his liking. He is busy, prosperous and fat.—Bob Nichols writes: "Please note that my correct address is 31 Bennett Avenue, Binghamton, N. Y. Although it is way off the map, several fellows have discovered my hiding place the last few months, among them being Ad Cardinal, Gene Macdonald, A. J. Pastene and almost Bob Bonney. I wish more of the fellows would follow their example. Radio nuts in particular would be welcomed with open arms. "Whatever happened to Butsy Bryant's pictures of the reunion that were going to be put into a special reunion reprint of the class news? I suppose that there still are so many like me who have no news, that there was nothing to print except pictures, and some of those wouldn't pass the board of censors."—Howard Currier, II, jumped from Detroit to Cleveland, where he is now in charge of the Design Department of the White Motor Co. Jack Coe gives the following report of progress: "There is no news about me. Have been married over ten years and my youngest child is four and I haven't changed my job. Furthermore, I have seen no Tech men from afar. Occasionally I see Strachan, Arnold and Rankin. The Class Secretary surely leads a dog's life."—Read the following from Mayo Tolman, XI, as cheerful as ever. "You have all the dope as to my being married and having three children—one, nine, one, four and a half, and one, three and a half, but perhaps you do not know that we own a sixty-acre farm overlooking the Hudson River about thirty miles out of New York. On account of having a farm I keep, though I cannot afford it, two saddle horses, so if you ever get this way I will be delighted to take you for a ride and, if you desire, give you a chance to take a vacation of a few weeks in the hospital. The first vacation I had had in three years came as the result of a fifteen-day lay-up with a fractured skull. As for work, nobody seems to want a

person who is such a d—f—as to bust his head open with the result that for two and one-half years I have been from pillar to post and back again. My brains seem to still be there, but the worth-while jobs are not. To amuse you, I want to get into the teaching game. At present, I am an assistant engineer with the New York State Department of Health. The job before this, and one I would have liked to have had for life, was with the New York Academy of Medicine but d—the luck their appropriation gave out."

As a reward to you who have waded thus far, I am going to tell you my story of the reunion. I give it without reference to any notes so you may be sure it merely touches the high spots. It will not do justice to the affair, but it will make record of some things which ought not to be either forgotten or remain simply the property of those who attended. I am prompted to mention the reunion, by the request of Dave Nason, for a little story to the absentees, on what they missed. Dave, himself, was present in person, but the salt sea air had such an effect upon his very sensitive organization that he did not remain fully conscious all of the time. By the middle of the afternoon of the first day about forty were on hand, having come by boat and automobile. There was about as much exchange of friendly greetings and reminiscing as would be expected from such a number under the circumstances. I am cold-blooded and not easily affected by the heat, but not so with George Clark and Jumbo Mahoney. Despite warnings, they exposed themselves too long and early lost consciousness. Some twenty-four hours afterwards they made their re-appearance and stoutly maintained that they liked this climate and would attend a reunion on the Cape as often as it were held. The first evening we sat down to a very enjoyable meal. The atmosphere was the very essence of conviviality. Charlie Thompson made a rotten speech, something about what the reunion was for and what events would be held. Nobody paid any attention to him, so no harm was done. Right after dinner, Fat Hoyt, champion Course I story teller, blossomed out in a new rôle as entertainer. Fat showed a line of card tricks that were really very clever and he held the centre of the stage for a half hour or more. Meanwhile, those whose hearing was acute caught sounds of the popping of harp strings. These sounds remained a mystery until some Sherlock Holmes discovered that George Clark had for the purpose of straining a rum punch unwittingly used a tennis racquet. The racquet came through with two whole strings and served Lester Gustin for his game of tennis as well as a new one. Lester was interviewed on the subject of his weight, but would not give it out. One of the chemists present,

1913 Continued

and it seemed that they were nearly all chemists, claimed that he was an expert on the estimation, by eye, of volume and density, offered to wager his weekly wage of twenty-five dollars that Lester would not weigh less than three hundred pounds. No one, not even Lester, offered to cover the bet. Later the party split up into small sections. Some walked along the beach. A group repaired to the bowling alley. Many found pleasure in small groups which made up parties in several rooms in the hotel. Ribald sounds were emitted long drawn out from these rooms and, "a good time was had by all." "When the second morning shone," to use the words of Whittier, "it looked upon a world unknown." The previous evening's pleasure had exacted its toll. Few were able to take breakfast. The party was being run in true medieval fashion. Athletic sports were on the program for the afternoon. There was a relay race, tug-of-war, three-legged race and a baseball game. I cannot recall who won or who lost, but we had a lot of fun and I do remember that Charlie Thompson can run as fast as ever, and Allan Beale carried his fifty excess pounds at surprisingly great speed. That evening Norman Clark won a bet by eating four whole course dinners. After dinner, the assembly gathered around Allan Brewster at the piano and regaled itself in song. Shortly after midnight we were awakened by the arrival of a doctor's automobile, and the news flashed that Walter Muther, who had arrived only a few hours before, was dying. This rumor, however, proved to be false I am glad to say. It seems that Walter had taken a room with Jim Beale, who is even more fastidious in sartorial matters than he was back in the days when we were free from care. Jim had brought along with his silk hat, an array of liquid cosmetics. An empty one of these bottles at the head of the bed where Walter lay unconscious told the story. As the Doctor had predicted, Walter "came to" early the next day. On the third day, we amused ourselves according to our personal whims and made ready for the grand banquet which was scheduled for that evening. That affair proved to be a barrel of fun. I, myself, was guilty of the only breach of the evening in the effort to resign this job of Secretary, which I have murdered for ten years. I struck, evidently, a very discordant note, for I had hardly got on my feet before I was downed under a shower of foodstuffs, and I could not make myself heard above the cat calls. The banquet was much on the order of our senior dinner held at the Copley Square Hotel. It occupied the entire evening. After a very short Sunday morning, the party

came to an end. I have but one regret, and that is that we had no Ring Lardner present to write of the many humorous incidents which took place. I could have told more, but not without the danger that some of our class wives might read it and act on the information after the manner of "Maggie Jiggs." I almost forgot to say that an ugly rumor was afloat concerning Betsy Bryant. Only time could disprove it and I am glad to say now after many months that the rumor was unfounded.

1914

H. B. RICHMOND, *Secretary*, 62 Tufts St., Arlington, Mass.G. K. PERLEY, *Assistant Secretary*, 45 Hill Side Terrace, Belmont, Mass.

Friday, June 6, Saturday, June 7, Sunday, June 8. Riversea Club, Saybrooke, Connecticut! This should be enough to assure your attendance at the best time of your life. After much thought and planning, the above has been set as the time and place of our grand Ten-year Reunion.

While every detail has not been filed in the official archives, the general plan is complete. We meet at six o'clock Friday afternoon at the Riversea Club for assignment to rooms and then a shore dinner. Special entertainment for the evening and the night as quiet as you make it. Saturday is for all kinds of athletics, Spanish included. A big dinner Sunday noon for a farewell parting. Saybrooke is about halfway between New York and Boston and has excellent roads of approach from both of those cities and from Springfield and Albany as well.

In order not to be dependent on weather conditions and to save time, two train parties will meet, one in New York and one in Boston, Friday afternoon, and go by special train accommodation to Saybrooke. The same scheme will be carried out, returning Sunday afternoon. Thus for those living in the vicinity of New York or Boston, the maximum time required will be from Friday noon to Sunday evening. Arrival will be made in these cities early enough to permit further evening travel to Philadelphia or to Worcester and similar cities. By traveling Sunday night, Cleveland, Pittsburgh and a large group of near eastern cities may be reached in time for the office Monday morning.

We will have the club practically to ourselves and its freedom will be ours. Its situation on Long Island Sound makes it particularly adapted for a reunion. The wets can look out to the sea and the drys inland.

As previously announced, it will be a *stag* reunion. No explanation or apology offered; count the votes.

Time is fleeting. It will not be possible to delay reservations until the last week. When the application blank reaches you, fill it out and return it by return mail. You want the reunion to be a success. It is your prompt co-operation that will make it so.

Notes during the past month reached the vanishing point. Everyone seems to be saying up good items and stories for the reunion. Pat Adams' supply has been lower than usual. It must be the calm before the storm.

Alden Waitt, officially Captain of Chemical Warfare Service, has been transferred from the Edgewood Arsenal to the First Corps Area and is stationed at Boston. Alden has not found out what he is here for, but is content to wait until the War Department discovers him.

The regular monthly luncheon was held on February 5, at the Engineers' Club. Pat Adams again assisted in making the meeting cheerful. Chet Corney gave an interesting talk on the growth of the Boston Edison Co. Those braving a disagreeable February storm to attend were Johnson, Derry, C. H. and H. S. Wilkins, Crocker, Ambler, Comey, Adams, Waitt, Richardson, Zimmerly, Perley, and Richmond.

June 6-7-8!!!

1915

FRANK P. SCULLY, *Secretary*, 118 First St., East Cambridge, Mass.HOWARD C. THOMAS, *Assistant Secretary*, 100 Floral St., Newton Highlands, Mass.

The Class Secretary is away on his wedding trip. However, in response to a plea for letters, the following were received:

Charles A. Blodgett, South Brewer, Maine, writes, "Your letter of January 31 and The Technology Review came in the same mail a few days ago. The combination was a happy one, so I cannot resist the urge to write you a short note. Apparently, the customary procedure is to tell about one's self, but my existence is so uneventful that I hesitate. But, really, there seems nothing else to write about, so here goes.

"Exactly eight years ago I came up to this country to work for the Eastern Manufacturing Company at its Lincoln mill as chemist. After a few months there, the electrolytic bleach

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1915 Continued

plant was started at South Brewer and I was put in charge. Since then I have had it under my wing with little or no change in my work. At times there have been exciting occurrences such as fighting chlorine gas and spills of fused caustic soda, but really nothing remarkable. On the whole, the plant runs quietly and quite efficiently. All we ask for here is that pulp mills run full time, so that we do not have to cut back on our production. This is the bane of the existence of any electro-lytic plant.

"My personal affairs are just about as much of a routine. I am not married and there seems to be no immediate prospects of such an event. While living in South Brewer, I have been with one family, that of Waldo Pooler, a most congenial gentleman with a beautiful wife and several fine children. Perhaps, being so comfortable, I have not felt the desire to start a home of my own. We live within a quarter of a mile of the plant.

"During the first few years, I did some wrestling, following the line as at Tech. There is a very active athletic club in connection with the mill. For about two years, though, I have not been on the mat at all. Laziness or overweight may be put down as the cause. However, I offered myself as a victim in case the director could find an easy opponent for me. He is putting on a series of boxing shows this winter and thought a wrestling bout might help to fill in. Incidentally, we had a great ball team here last summer and hope to again this year. Except for the few Boston College and Holy Cross men who play around Boston, the rest of these players come to Maine. Believe me, we play ball in these parts.

"For recreation I have an auto (a Reo) and it gets quite a lot of running, especially during the summer. For the last three years the family has stayed at Stockton Springs about thirty miles down the Penobscot. This trip we would take twice a day, back and forth to work, and the roads are by no means boulevard-like. Then there are plenty of other trips to take, so that altogether we have plenty of riding. Winters are winters here, so that there's not much pleasure in riding although the roads are kept open with truck-plows, or by tractor, if occasion demands.

"With the Course X-A crowd around, I am able to keep in touch with activities in the Institute. It's a constantly changing group of fellows and some of them are mighty fine. Of course, though, I have to depend on The Review for news of my own classmates. In this connection, I was particularly pleased to

hear through the notes from Alfred Hall, for I had sort of lost track of him since he left these parts some three years ago.

"Charlie Paine, III, is the only '15 man here besides myself. He will probably tell you his own story which is somewhat more exciting than mine. But every little while someone of those active spirits who are following the road as sales engineers come along and tell us about Fifteeners from elsewhere.

"How is the Catholic Club getting along? Do you ever hear about it? I have watched The Review in vain for news of it and wondered if it still carried on. If you have a chance, you might stir up their publicity man to give it a notice for the sake of those outside."

George J. Easter, XIV, 634 Elmwood Avenue, Niagara Falls, N. Y., says, "Your piteous pleadings in The Reviews of late have at last aroused even me. Frankly, I have never dropped you a line because my life seems so prosaic, except when occasionally the baby yells in the small hours, that I have felt that nothing I could say would be of interest. If, however, you can make anything out of this effusion go to it, otherwise I'll know you agreed with my opinion as stated above.

"Before proceeding with my own tale, however, let me extend my whole-hearted congratulations on your engagement. I do not know the lady personally, but I do remember that you used to show extremely good taste in such matters in days gone by and I'm sure you have not retrogressed.

"Personally, I regard married life as a great success, and I've lived through nearly four years of it, the family now consisting of my wife, myself, two boys (aged three years and eight months respectively) and an old flivver whose age is more uncertain.

"At present, I am Assistant Director of Research at the Carborundum Company with which outfit I have been for something over four years. My principal interests are along the line of super-refractory bricks of which we have several lines in process of development in addition to our regular carborundum brick. I have an occasional fling at the grinding-wheel end of the work, too, and have dabbled with all sorts of things to such an extent as to make the job a pleasant and interesting one.

"There are at least six Tech men with the Carbo, including C. L. Smith, VI, who is doing time study and rate setting work. There is, of course, quite a mob of Tech graduates in town, but I have not so far come across any other '15 men among them, though I occasionally see Ben Neal, who comes over from Lockport.

1915 Continued

"Last summer I was exiled to Perth Amboy, N. J., for several weeks to do some work on a tunnel kiln in our refractory plant there. It was a rather dreary assignment or rather it would have been had it not been for Gil Peakes, XIV, who gave me a royal reception. He has been there for a good many years but is now running his own company, The Embed-Art Co., who make Bakelite jewelry, etc. He seems to be prospering, although as he reminded me when I remarked upon his being near the filthy-rich class, he is still single and that may account for a lot (not that I want to discourage you, however).

"At any rate, he is a member of the Lions Club and drives a perfectly good Hupmobile sedan, in which he made a tour of the whole state of New Jersey for my special benefit, including a visit to Atlantic City.

"Shortly thereafter, I was stationed at the Chemical Show in New York, where I found our old friend Bailey, who, as I remember it, was holding forth at the Stokes Engineering booth. I stayed at the show only two days and so perhaps missed seeing other of my classmates who came in later.

"Several weeks ago I noticed that E. J. Casselman, X, has transferred his allegiance from Westinghouse to Mellon Institute in Pittsburgh. Can't you stir him up and find what it is all about?

"Regarding the reunion next year, I vote yes, and will do my best to get there. You may or may not know that I haven't been in Boston since the day I took my last exam, but at any rate, I should find it rather interesting to look the new buildings over and to renew my friendships among the old gang.

"I guess that is about all I know that might be of any interest at present. If you or any of the others ever get out into this region give me a call, please, even if you don't get to see the Falls as a result."

1916

D. N. BARKER, Secretary, 14 Marathon St., Arlington, Mass.

Your Secretary wishes to thank all '16-ers who have helped to put 1916 back on the map. If only some of you men would write at the time you mail your checks, everything would be fine. Don't wait until you are president of the company before

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sending us some news, write anytime and let your coursemates know where you are located. It takes a lot of time to write to everyone of the class, so this is to remind you again that we would appreciate it very much if you would send along your dues at this time. Don't forget our slogan, "200 in 1925." Will you be one of the 200?

At Lowell a short time ago I saw Captain John Woods, as everyone calls him, at the U. S. Cartridge. He is very busy getting ready for the next fight, but in the meantime making everything from radiators for automobiles to safety pins. Bousquet, X, is chief chemist at this plant. The work evidently agrees with him, as he is much larger around the waist than when I saw him in 1919.

Had a long chat with Henry Shepard recently. He is Vice-President of the Lewis-Shepard Co. of Boston, manufacturing labor saving devices. Henry says business is very good, and he has recently left on a six-week trip to the Pacific Coast. If any of you '16-ers happen to be in Boston, be sure to visit Henry, as he is always glad to see a Tech man.

H. F. Dodge, now with the Western Electric Co., of New York, writes as follows: "It takes an SOS call to get news, and your card reminded me that no news is not good news from the viewpoint of our column.

First, let me congratulate you on the issuing of the new directory. There were several men that I have wanted to get in touch with but knew not how to do it before the appearance of the directory. I am still in the Research Laboratories of the Western Electric Company and have been working on a variety of things for subsistence. Broadcasting transmitters are taking a fair proportion of the time. Last year, I spent some time down at Fort Huestis, Va., trying out a new microphone which was developed for sound ranging of gun-shot. In the course of four days we shot off enough ammunition in twelve-inch mortars to take up the value of two hundred \$100 Liberty Bonds. Figure it out. While at the Coast Artillery School at Fortress Monroe, I ran across our old friend, Captain J. W. Barker.

"Just at present, I am developing an electrical stethoscope and have been sent to several hospitals in New York, Boston, and Philadelphia to analyze the pathological sounds that attend bad hearts and early or late cases of T. B.

"At the A. I. E. E. Convention in Philadelphia last week, I discovered G. W. Ousler skimming the floor of the ballroom of the Bellevue-Stratford, and later exchanged confidences with him. Although you have him marked with a (†) in the directory, he is very much alive.

"At the regular New York monthly luncheon at the Hotel Lorraine last week, Burbank, Jimmie Evans, Pettee, Kniezner, and Mill were among the '16-ers present. Pettee and Kniezner are now falling for radio, but assured me that sets are not used for proxies at home to permit them to stay out nights.

"I had luncheon with F. Clarkson a few days ago. I understand he has an additional item in the form of a second son to submit for the directory.

"Why don't you drum up a real good story from E. A. Ekhdahl in Shanghai? He has observed enough in China during the last four and one-half years to make up a full length column for us.

"The last time R. S. Burnap was up to visit us, there was an indefinite something about him that led me to suspect that he is not as strong an exponent of single blessedness as formerly. I have no tangible data to support my suspicions."

Nick Balyozian of Mansfield has a problem for all Course V and X men. If you solve it, send your answer to Nick.

"Really, there is nothing new to write about which would be of interest to you, as my work is entirely the production of textile chemicals together with the incidental research work. However, some of our 1916 physical chemistry wizards should determine, I believe, the various constants of the following reaction: $K + I + 2S = \text{Kiss}$; (1) heat of reaction, (2) full energy of the reaction, (3) whether it takes place better in sunlight, moonlight or nolight, (4) effect of pressure, (5) time of reaction.

"This would be a distinct contribution to our worldly knowledge. What say you, Saul Hoffman and Joe Meigs? I would be willing to coöperate with any of the boys in this research. I'll do the laboratory work."

C. E. Carstens has returned to the Anaconda Copper Co. at Anaconda, Montana, and is working in the Research Department. According to present indications we are to receive a wedding announcement this summer.

E. M. Wanamaker, who is at the Raritan Copper Refinery at Perth Amboy, N. J., made a trip to Anaconda last fall, going out all alone, but returning with a bride.

Flipp Fleming, a live '16-er at Akron, Ohio, sends us the following: "As far as news for the space allotted to the 1916 Class, I haven't very much to say. I am still with the Goodyear Tire & Rubber Company and slowly making progress.—Hal

1916 Continued

Grey another member of the Class of 1916 left Goodyear very recently and is now working for the Leominster Shell Goods Co., Leominster, Mass. There were four 1916 mechanicals with Goodyear shortly after graduation. There are two left, the writer located in Akron and John Engle in the Far East.

"We have a very live Technology Club in Akron, with a total membership of approximately fifty-five members, and are able to get out forty to forty-five to our meetings. We have had several get-togethers with the Cleveland Club and had some very good times. We are planning a meeting for next week which we style a business meeting. Following the business we intend to have a little bowling match. Not that we are such good bowlers, but merely for the sport of it."

"I see very few boys from the 1916 Class and hear very little news. By the way, I received an invitation to Dina Coleman's wedding. He has been given up as lost for a long time, but I see he has at last jumped into the pool."

D. R. Husted, now making roller-coasters for the L. A. Thompson Scenic Railway Co. of New York, has been heard from. "There is not a great deal I can say for myself except that I am still enjoying 'single blessedness,' having my ups and downs in the design and construction of roller-coasters, and living a very quiet life out in the wilds of Long Island during my spare moments.

"By the way, that reminds me, I wish that you would see to it that the words Glen Cove appear between Summit Place and Long Island under my name. You see, Long Island is something over one hundred miles from New York to Montauk Point and I am afraid that a person making an attempt to find me might possibly come across another Summit Place somewhere in their travels over its surface."

Another Course XIV man who has been lost for over four years has been found and promises to do better in the future. C. N. Richardson at Washington, D. C., writes as follows: "Ten thousand abject apologies, and two grovels in the dust. I misplaced your blank about the Directory of 1916, and thought no more about it until I got my copy. The day after, I received a call from Ray Brown and Jack Freeman and we decided that I was a slacker, a dead-head and other things not nice to write. I see Jack occasionally, as he is at the Bureau of Standards, but Ray is at Niagara Falls. Haven't seen any other '16-ers since I came here. I haven't much personal history to tell. Since the 1916 Class Dinner in 1919 when the Endowment Fund drive was on, I came here to Washington to help fix nitrogen and have been fixed ever since. So far, all the eligible and some of the ineligible girls have fought shy of my blandishments and I am still on the unattached list, with prospects for staying there as bright as ever.

"Enclosed please find check for \$5.00 as dues and whatever else you may see fit. It sure is fine of you to grab hold of this thing and push it, while a bunch of dead-heads like myself misplace your letters. My congratulations and promises to be gooder in the future. I haven't heard from or about either Byrne or Wentworth for four or five years, so couldn't tell you where they drifted to."

William W. Dodge now located at Asheville, N. C., sends us a short note as follows: "I am making Asheville my home, and am beginning to get back into things. Though I have had to mark time for the most part since the War, I expect to get back into architecture."

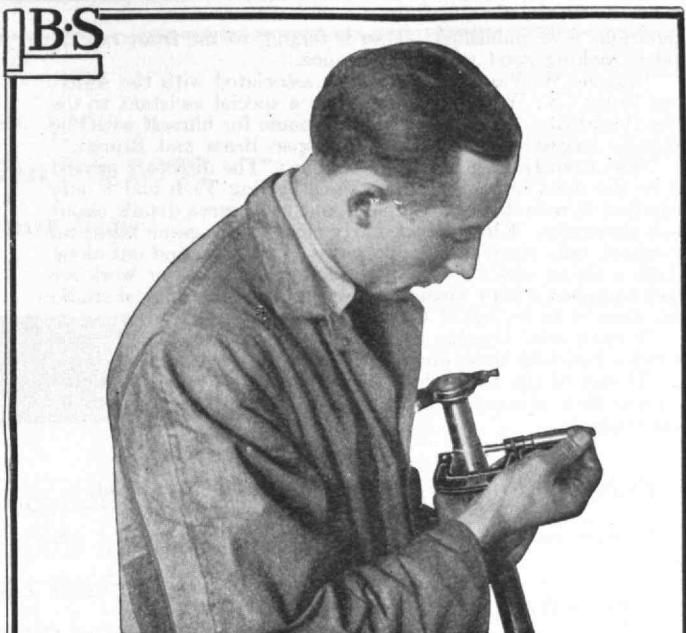
Another live '16-er has been heard from, this being Steve Brophy now located at 25 Broadway, New York City. "It is rather late to extend congratulations to the Editor of the 1916 Directory, but they are nevertheless sincere and I think that anyone having the pep to compile a document so complete and interesting, deserves congratulations the year around. Work such as you are doing is too often thankless, so we want you to know that here in New York some of us realize how much you are doing and appreciate it.

"In looking over the list, I note that you have not heard from Bob Allen. Bob is practicing architecture in Roanoke, Va. He married Augusta Glass, daughter of ex-Secretary of the U. S. Treasury, Carter Glass, two years ago and they have one son.

"My own listing is not quite right, as it appears that you have not been advised that I was married to Miss Jessie Stewart Mulligan of Mt. Vernon, N. Y., on October 9, 1923. Nelson MacRae, '16, acted as chief prop at this ceremony and became so imbued with the great idea that he is to marry Miss Marquerite Bellamy of Wilmington, N. C., on February 20, 1924.

"Francis C. Foote is associated with Morris Knowles, nationally known sanitary engineer of Pittsburgh, and I understand he is now Mr. Knowles right-hand man.

"Thomas S. Holden is statistician for the F. W. Dodge Company, publishers of Dodge Reports, and has recently developed a statistical service covering the building field which is regarded as the most authentic and comprehensive survey of the building



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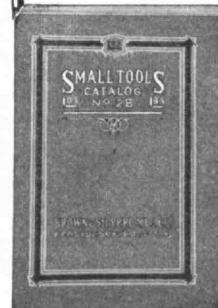
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1916 Continued

conditions ever published. Tom is forging to the front rapidly and is making good with a vengeance.

"Eugene W. VanC. Lucas is now associated with the American Brass Co., Waterbury, Conn., as a special assistant to the Vice-President. He is also making a name for himself with the 'World's largest manufacturers of Copper, Brass and Bronze.'"

News from Detroit by Hyman Ullian: "The directory proved to be the most interesting news since leaving Tech and I only regretted it wasn't more complete and gave more details about each classmate. I have stuck fairly close to the game taken up at school, only straying from its paths in order to find out along which a living was in store. In connection with our work we have equipped a very modern commercial photographic studio and claim it to be one of the most modern of its kind."

"I have seen Loomis and Baker of this class of ours once or twice, but with these exceptions haven't seen any of the boys.

"If any of the bunch happen out this way, I would be glad to show them around, as I still have the time, being both single and happy."

1917

RAYMOND S. STEVENS, *Secretary*, 30 Charles River Road, Cambridge, Mass.

No notes received from the Secretary.

1918

PERCY W. CARR, *Secretary*, 400 Charles River Road, Cambridge, Mass.

The first of the series of monthly class luncheons has finally happened. The eight men who gathered at the Engineers' Club at Arlington Street and Commonwealth Avenue last week, Tuesday, voted the proposition a success, especially from the point of view that it was the first meeting. The meeting will be repeated with larger numbers present at the same place at 12:15, the first Monday of each month. If any out-of-town members of the class are in town, please try to attend, as the chance to exchange views with the men outside of Boston is too rare to let an opportunity go by. Some cards were sent out the last time, forty in all. Some of the men who should have been notified did not receive notice, owing to the incompleteness of the files. Please keep the date in mind and be there whether you receive a card or not. The luncheon is not expensive.

Last Tuesday, Mr. George Gilmore of the Alumni Association was present and spoke to us informally of some of the present-day Tech affairs. He was intensely interesting.

Gren Hancock showed up at the luncheon and after the proper amount of stalling, asked me if there were room in the column for an announcement. On being reassured, he said that it was a girl, born on January 12, this year, at the family domicile, 100 Oakley Road, Belmont. Gren is receiving congratulations there or at 70 State Street, where he is in the Banking, Investments and Securities business with L. Sherman Adams.

Rumors about Bridge Bridgewater were circulated, but on return to the office, I could find in the file on "Arrivals of All Kinds" no item which would allow me to make an announcement at this writing. I fear Bridge is holding out on us, and do not feel that that is quite the way for him to treat his old buddy. How about it E. R.P?

Gretchen Palmer shows the same old pep and enthusiasm over class affairs and comes to time with the following very interesting letter, dated February 6, at 148 State Street, Boston, Mass.

"I see you stole some of my fire when you had the article in the last Review about our old classmate, MacArdle. Am sorry to say that I cannot tell you any of the particulars of the wedding although I had an invite, but as I was at home for the reunion just two weeks before the happy occasion, I could not come up for that. Let me say right here that I have seen Mr. and Mrs. MacArdle two or three times since that date, and they are just as happy, and if such a thing is possible, more happy than they were at that time.

"I saw Chester Linscott at the joint meeting of the Chemical Societies of New England at the Institute on January 12, and I was absolutely unable to get any information out of him. He is still lacking in class spirit just as much as he was when at the 'Stute. (Secretary's Note: I hope Chet sees this.)

"I cannot remember whether I let Jule Howe know that I had heard our old friend Jonesey had moved again, and this time it is to Newark, N. J. He is now working for a dye concern there.

"There are one or two pieces of news I have that do not belong to Course V, but no one seems to have had them in The Review so I will give them to you. Didn't any one know that our old friend, Wendell Kayser, II, is now ruling the whole domain out at Wellesley College? He is there as Business Manager. (Secretary's Note:—Wrap that up, gang.) He took over his new position (and it certainly is a position and not a job) the first of last May and has been having a great time there ever since. He brought his family back from California during the summer (Secretary's Note:—Dumb Business, eh, fellows?) and now they are peacefully residing at 18 Weston Road, Wellesley. By family I mean Mr. and Mrs. Kayser, young David L. Kayser, aged two years and four months (and looks just like his father) and the dog. In that family, the dog must not be forgotten.

"The second piece of news that will be of general interest is that Julian Avery, Course XIV, is now in Ryfylke, Sweden, where he has been since the middle of last August for his concern, the Electric Furnace Products Company, Limited. Have not heard directly but indirectly, I learn that he is having a most wonderful time there. He is a very valuable man to the company and is being kept over there much longer at a stretch than the men are usually kept. (I sure am using some wonderful English in this letter, but then why worry among friends.) If I hear any more from Jule I will let you know.

"What is the matter with all the other course Secs? I know that you tried to hurry me when you saw me at the Banquet, but I have had such a busy January that I could not get this written earlier. Go for the other fellows and get them writing so that we can have a real set of notes in every month again. I will try to do my best, but if I hear nothing, cannot write.

"One more thing: I was speaking about MacArdle a few words back. Here is the latest. He is now Director of the Real Estate Course at B. U. School of Business Administration. What he knows about the subject might fill a book but then he feels that he can learn. This past week he starts giving a course on Real Estate down at a school at Providence, so you see he is trying to branch out considerably. Will let you know later how he comes out.

"Now for a word about myself. Yes, I am back in Boston and wish that I could be almost anywhere else under the heavens. I had accepted a call out in South Dakota when my family arose in arms and called me home again. Ticket was all bought and then had to change my plans. I finally listened to my family, as I realize that they don't want me to be away all the time so I am now in the office with my father down on State Street. I cannot say that I like this work either, but then I am interested in a number of things up at Trinity Church so am not out of church work altogether. I suppose I am here at the



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1918 Continued

office for life now, so that means that things are settled for me.

"One or two more words. You fellows may be interested to know that at the last election of the M. I. T. Woman's Association, yours truly was elected Recording Secretary, so you see I am not going to get out of school things altogether either.

"Tell me what happened at the meeting of the class before the Alumni Banquet. Some way or other you still had my Morristown address on the list that sent out those notices so that I received mine the following Monday. I know that something was going to be said about an endowment for the 'Stute. What was done? Remember, I am just as interested in those things as you fellows are and I want to help when and where I can."

Let's hear from some of the course Secs who to date have shown first-class evidence of well-developed cases of writer's cramps or something worse. How about it, Sax Fletcher and Jack Poteat? I'll have to threaten you with something pretty dire if news is not promptly forthcoming. Think I know how to get it from you both, too.

1919

PAUL D. SHEELINE, *Acting Secretary*, 35 Congress St., Boston, Mass.

As this issue of The Review goes to press, it becomes ever more important for the Class of 1919 to keep in mind the dates of our reunion, June 27, 28 and 29. Within the month you will receive a detailed description of our plans for the reunion, but it is important that everyone make his own plans now, so that he will be sure to be on deck.

At the Annual Dinner of the Alumni Association, fifteen members of the class attended. These included Bob Bolan, How Wyse, Perkins, Goodridge, Whiton, Rus Palmer, Blake, Richards, Stam, Cashin, Selya, L. I. Snow, Clarence Nutting, R. W. Mitchell and Paul Sheeline. It was the first time for many moons that many of the fellows had seen one another, and all had a good time reviewing past experiences.

Everyone will be glad to learn that Gene Smoley has sufficiently recovered from his recent accident to be back at work

with the Aluminum Company at New Kensington, Pennsylvania.

Larry Dalton writes from Philadelphia that he has been transferred to the home office of the Link-Belt Company in Philadelphia and is continuing his work in his line of sales engineering with even greater prospects for success than before.

From Jack Stevens we continue to hear the best of news. He is still making paper and trying to pay his bills at Appleton, Wisconsin. He complains that he seldom sees any members of the class and wishes that the men of Course XV, in particular, would get in touch with him.

Harold F. Marshall, II, has been appointed Advertising Manager for Warren Webster & Company of Camden, N. J., makers of steam heating systems and steam specialties. He was until recently Advertising Manager for Dwight P. Robinson & Company, Inc.

He has moved from Brooklyn (a good move) and now lives at 103 Morgan Avenue, Palmyra, N. J. In case it hasn't previously been reported, he has been married over two years (one of those Franco-American romances) and has a baby daughter four months old.

Mason S. Noyse is now at Lehigh University, Bethlehem, Pa., in the Department of Naval Architecture.

Joe Kaufman, VI-A, is now a manufacturer of radio apparatus in New Haven. Joe seems to like his business better than being personnel manager.

Maizlish, VIII, received his Doctor's degree from the University of Minnesota and is now at Lehigh University, Bethlehem, Pennsylvania.

Engagements recently announced, included those of Miss Adelaide Guion of Newton, Massachusetts, Smith, '22, and Eaton Webber, '19, of Cleveland, Ohio; Miss Margurite Virginia Williamson of Hampden, Virginia, and Morton A. Smith, also of Hampden; Miss Dorothy Slader of Watertown to Carl Svenson, who is now an instructor at the Institute. From San Francisco comes the announcement of the engagement of Miss Mary Louise Michaels to Blake Darling, formerly of Brookline, Massachusetts.

Your Secretary wishes to call your attention to his new address, 35 Congress Street, Boston, Massachusetts. As of January 15, he has become the Assistant-Manager of the New England offices of Hemphill, Noyes & Company.

1921

R. A. ST. LAURENT, Secretary, 241 Central Ave., Whiting, Ind.
CAROLE A. CLARKE, Assistant Secretary, 55 Tieman Place,
New York, N. Y.

Hello, Gang, this is Station Twenty-one. The Editor and Gen(eros) Sec present Ray and Cac in several columns of "Broadcasting Beaver Badinage from the Bunch," with the Asec at the "Mike" this month.

Thanks for your fine response to Ray's hot Edisonesques. Keep the info coming if you want this column to be up-to-date. If, perchance, some of you have not sent in the Info and Touching Sheets dig 'em out from that stack of mail and — well, uno — Do It Now!

Gentle Reader, were you in l'il ol' N' Yawk during the month of March? Did you go to the annual dinner of the Tech Club on the 7th, the first regular 1921 luncheon on the 15th, and Tech Show on the 18th? At this early stage of writing looks as haow thar's agoin' to be big doings in Gothamburg toot sweet. At any rate, watch for the bruited banter in our next. (Ain't apt alliteration's artful aid awful)! Well, let's go.

C. L. Bond, II, is still in India with the Standard Oil Co., according to word received from his mother, 9 Crandall Street, Adams, Mass. Still, even at that distance we're betting Clint drinks, say coffee, f'rinstance, rather than take anything out of a teapot.

A. P. Powell, XIV, 530 Cambridge Street, Allston, Mass., signs himself "your fellow conspirator with whom you tried to blow up the Dynamo Lab." and then seeks shelter under the banner of Gensec, I, so we can't talk about him. Windy finished with '22, but has tackled Electrical Engineering and Physics for his S.M., and expects to teach and continue research work. He reports that H. M. Lane, VI, is an instructor in the Dynamo Laboratory, O. G. C. Dahl, VI, is instructor in the Electrical Engineering Department, R. L. Turner, X, recently got his Master's Degree and is now working for his Doctor's and Frank Maconi, XV, 76 Clark Street, Newton Centre, Mass., is in Boston in the advertising game for himself.

From *Industrial and Engineering Chemistry*: "H. F. Stose, XIV, who was connected with the Research Laboratory of Applied Chemistry at the Massachusetts Institute of Technology, has accepted an appointment in the Chemical Department of the Hood Rubber Co., Watertown, Mass." Is J. B. Mattson, VI, with you, Stiessen?

J. P. Putnam, VI, has left the Narragansett Electric Lighting Co., and is now an instructor in Electrical Engineering at Brown University. Put lives at 13 Brown Street, Providence. Get in touch with N. G. Abbott, 107 Providence Street, for the location of '21-ers in Providence.

R. C. Dolle, XV, The Lakeview Ponds, Mt. Airy, Cincinnati, Ohio, was office manager for a local contractor and doing nicely until his boss sold out. Just to show his versatility, Bob continues: "I accordingly retired, and due to the illness and subsequent death of my grandfather, I accepted rather unusual responsibilities for a Tech man, I suppose. During the past thirty years he had developed a business of raising and selling goldfish and water plants wholesale to jobbers, department stores, florists, bird, and ten-cent stores throughout the country and Canada. A farm of one hundred acres, within the city limits of Cincinnati, is employed in the business and I am in charge of the work." Not satisfied with this, Bob is dabbling in real estate on the side. He says O. L. Bardes, XV, of the Bardes Foundry Co., is Treasurer of the live Cincinnati M. I. T. Club. Wish Ollie would write us.

Recent engagements include the following: "Mr. and Mrs. George P. Cummings of West Acton, Mass., announce the engagement of their daughter, Gertrude Esther, to Mr. J. Ernest D. Clarkson, II, son of Mr. and Mrs. John H. Clarkson of Waltham. Mr. Clarkson is a mechanical engineer with the Atlantic Refining Co., Philadelphia." "Mr. and Mrs. John Becker of Brooklyn, N. Y., have announced the engagement of their daughter, Christine, to Walter Wood Anderson, IV, son of Professor and Mrs. J. R. Anderson of Bellaire, Ohio. Miss Becker is a graduate of Smith College and of Columbia University. Mr. Anderson received the degree of B. Arch. from the Ohio State University, and S.B. and S.M. in Architectural Engineering at M. I. T. He is now with the Bartlett-Hayward Construction Co., of Baltimore, Md. The wedding is to take place in June."

G. W. Spaulding, Jr., VI, is now in St. Louis with the Union Light and Power Co., 315 No. 12 Boulevard. Whit lives at 432 No. Clay Avenue, Kirkwood, Mo.

Now that he's married, maybe the following, from a "Mary Mixup" comic strip, is from our own P. N. of IX: "Don't forget to hang up your coat and put your mittens away, Paul Anderson, Huntley, Minn." Can you prove the alibi of living at 164 Allen Street, Jamestown, N. Y., Paul?

Ooh, look it! A letter from long-lost M. K. Burchett, VI, from Apartment 23, 1430 University Avenue, New York City. Since leaving the 'Stute, Max has been in the advertising and publishing game, and is now with a printing concern in an executive capacity on service, production, and buying. Our heartfelt sympathy goes out to him on the news of the death of his father. Max sends news of another long-lost member of the flock, R. H. Damon, II, who is with the Public Service Corporation of New Jersey, and whose address is 726 Cooper Street, Camden, N. J. Roger's engagement was announced last Thanksgiving.

Another encouraging and welcome letter came from L. B. Barker, II, Technology Chambers, 8 Irvington Street, Boston, who has been sent from the Westinghouse Electric headquarters at East Pittsburgh to make an industrial heating survey of the territory covered by the Edison Electric Illuminating Co., of Boston. Linc says he has no news and then proceeds to indite six pages of the following: "When last heard from, Kuo Chou Li, II, was in Peking. The snapshot he sent me of himself and Mrs. Li shows that his taste in the matter of feminine beauty is thoroughly American. Fat Russell and Windy Winchester are with Stone & Webster here in Boston. Mr. and Mrs. Freddy Rowell are at 14 Cushman Street, Plymouth, Mass. Freddy is with the Plymouth Electric Light Co., which seems to be a queer job for a mechanical engineer, but in view of my present connections, which are decidedly two phase, I cannot press the criticism. Henri Pell Junod is in Cleveland working about twelve hours a day on something that has to do with metallurgy.

"Mr. and Mrs. Bevo Brockman are in East Liberty, Pa., temporarily, while Bevo helps Landerson and Porter put up the new Springdale station of the West Penn Power Co. Bows Barker is back at the 'Stute finishing up and expects to graduate this June. A few months ago my boss at East Pittsburgh received a little booklet from Arthur D. Little, Inc., describing the company's activities. The letter that accompanied it was signed by R. A. St. Laurent. Of course, I had to tell the bunch all about Ray. It was only human, you know. Incidentally, the letter was short and very much to the point, and suited its purpose perfectly. (Applause.)

"Siegfried, XIII, is at East Pittsburgh with the Circle W outfit in the Materials and Process Department. — J. L. Entwistle, VI, is also there in the Heavy Traction Department. — D. G. McAllister, VI, has joined our San Francisco office after serving his time at East Pittsburgh. I am mighty glad you are

TEN TIMES AROUND THE WORLD



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1921 Continued

keeping after the alumni news the way you are. It may seem a thankless job but I believe the bunch appreciates it. You can be assured that I do." What a gran' an' glorious feelin' 'twould be if every '21-er felt this way and would send us a post-card as soon as he finished reading this Review. Oh, Boy!

G. O. Fredrickson, VI, writes from 169 Queen Street, Bristol, Conn., that he has left the Underwriters' Laboratories and since June, 1923, has been an electrical engineer in the Plant Engineering Department of the New Departure Manufacturing Co. Besides stating that he has seen no '21 men in town, his only comment is, "I still enjoy blessed singleness."

H. C. Pratt, II, 604 N. Main Street, Mt. Vernon, Ohio, sends a request typical of the father of the *Tech Engineering News*, for autobiographies of the perpetrators of this column. We'll try, at the end, if the Editors aren't looking. Hazen says he had a letter some time ago from Dick Lee, who was mourning his plight in a mine at the upper end of Canada. He continues: "I am now an apprentice mechanic in the shops of the C. & G. Cooper Co., engine builders. Awesome height for a Tech grad to scale, isn't it? I am supposed to be learning the business from the bottom up. So far I have devoted my exclusive attention to the bottom. Just as soon as I begin to get halfway proficient in one department, the President gets jealous and shifts me to another." However, (note we, too, violate Tubby Rogers' famous "Never begin a sentence with 'however'"), Hazen hints at news of an epochal success in the inventing line in the near future. Best o' luck.

G. E. Farmer, VI, is our latest Californiac. Gef is with the Southern California Telephone Co., and writing from 1015 West 20th Street, Los Angeles, he does little but tease us with stories of keeping windows open for months and climbing mountains when homesick for snow. We don't dare re-read that letter, but we remember Gef said he is still receiving training in the various departments and expects to be assigned to transmission work.—E. R. Chilcott, VI-A, was the only other '21-er at a recent banquet of the Tech Club of Southern California.

C. L. Chatham, VI-A, 80 Park Place, Newark, N. J., is a cadet engineer with the Public Service Electric Co., of New Jersey, living at Apartment 41, 83 Van Wagener Avenue, Jersey City, N. J. Chink was married last November to Miss Elizabeth Reed of Clearfield, Pa., and we're going to apologize personally and at great length for this late announcement the moment we receive the news letter on the Hexalphas which Chink promises to send.—D. S. Piston, VIII, has changed his address to 230 Massachusetts Avenue, Lexington, Mass.

A. A. Turner, I, 1452 Fairlawn Avenue, Dormont, Pittsburgh, Pa., is still a correspondent for the Harbison Walker Refractories Co., and sends the following: "Ed MacDonald has left town, ostensibly to get married.—E. S. Schiro is working for Koppers Company, in town.—Frank Kittredge is still laboring in these parts, last known to be with the Duquesne Slag Products Co.—Bob Barker tried to sell the company's district sales manager at Buffalo a radio set but didn't, while L. O. Buckner sold an iceless refrigerator to the company's secretary. What are you selling, Ray, the same old bunk?"

This closes our program for the month unless you wish to stand by for some elastic close-ups (we've reached the third chapter of Webster's work now) of our announcers.

R. A. St. Laurent, X, X-A, S.B., S.M., Ray, Saint, former high factotum of direct mail and other advertising for Arthur D. Little, Inc., Cambridge, when he didn't let the little brunette use the "Dictated but not read" stunt while he ran over to the 'State to uphold the cause of '21 against the high and mighty Editors for using the shears on notes such as these, has made good and the Standard Oil of Indiana nabbed him on the first of this year. He is at 241 Central Avenue, Whiting, Indiana, where he will be in the company's plant for six to eight months by which time he will be a technical or sales representative with a location in one of the ten Middle Western states. Whiting is about twenty miles from Chicago and we expect to hear of big doings there when Saint gets his reportorial nose for news on the scent. Last, and most important, is the announcement of his engagement to Miss Helen Mackenzie, who many will remember in the old days at the Walker affairs.

C. A. Clarke, VI, alias Cac or Asec (with apologies to Eric), was caught by the Bell System in 1921 and ever since has been an electrical engineer in the Engineering Department of the Western Electric Co., 463 West Street, New York City, telephone, Chelsea 1000, Extension 1055. Was in telephone transmission engineering on amplifier studies, public address systems, radio speech input circuits; now doing special research relating to high quality transmission and carrier telephone problems under R. V. L. Hartley and J. W. Horton, '14. Home address changed to 55 Tieman Place, New York City, telephone, Morning-side 5690. Spends most of his time praying for '21 mail but gets only one-half of one per cent yield on postals sent out. Nothing in the matrimonial line; his cash isn't hooked . . .

SHOP LIGHTING.

In an address delivered before the members of the Western Pennsylvania Division of the National Safety Council, Pittsburg, Pa., March, 1918, by C. W. Price, the importance of good lighting in industrial establishments was discussed, and the disadvantages of poor lighting were clearly shown by some figures mentioned by Mr. Price.

A large insurance company analyzed 91,000 accident reports, for the purpose of discovering the causes of these mishaps. It was found that 10% was directly traceable to inadequate lighting and in 13.8% the same cause was a contributory factor. The British Government in a report of the investigation of causes of accidents determined a close parallel to the findings of the insurance company above quoted. The British investigators found that by comparing the four winter months with the four summer months, there were 39.5% more men injured by stumbling and falling in winter than in summer.

Mr. John Calder, a pioneer in safety work, made an investigation of accident statistics covering 80,000 industrial plants. His analysis covered 700 accidental deaths, and of these 45% more occurred during the four winter months than during the four summer months.

Mr. C. L. Eschleman, in a paper published in the proceedings of the American Institute of Electrical Engineers several years ago, reported the result of an investigation of a large number of plants in which efficient lighting had been installed. He found that in such plants as steel mills, where the work is of a coarse nature, efficient lighting increased the total output 2%; in plants, such as textile mills and shoe factories, the output was increased 10%.

In an investigation of the causes of eye fatigue, made by the Industrial Commission of Wisconsin, it was found that in a large percentage of industries, such as shoe, clothing and textile factories, the lack of proper lighting (both natural and artificial) resulted in eye fatigue and loss of efficiency. At one knitting mill, where a girl was doing close work under improper lighting conditions, her efficiency dropped 50% every day during the hours from 2:30 to 5:30 P. M.

The above mentioned incidents indicate how important a factor lighting is in the operation of the industrial plant. It has been well said, "Light is a tool, which increases the efficiency of every tool in the plant." Glare or too much light is as harmful as not enough lighting, and in no case should the eyes of the workers be exposed to direct rays, either of sun or electric light.

Windows and reflectors should always be kept clean; that is, cleaning them at least once a week, for where dust and dirt are allowed to collect, efficiency of the light is decreased as much as 25%.

Good lighting, in addition to its other marked advantages, is a strong incentive towards keeping working places clean, for it clearly exposes any place where dirt or other material has been allowed to collect. White walls and clean windows glazed with Factrolite Glass will eliminate the sun glare and increase the illumination 25 to 50 feet from the window from 38% to 72% as compared with plain glass.

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1921 Continued

we mean, hash isn't cooked! Goo' nite — thassal there is to weaf — pleasant dreams.

1922

ERIC F. HODGINS, *General Secretary*
Room 3-205, M. I. T.

Course II

J. E. SALLAWAY, *Secretary*, 125 Cushing Ave., Dorchester, Mass.

It is beginning to look as if the "Parting Shot" that was fired Commencement Day went a bit wild as far as Course II is concerned. The mails have not been heavily laden in the last few months with news about 1922 Mechanical Engineers. Write in something even if it is only to tell us that you are married. Material should not be scanty from a course as large as ours. The gensec will give us all the space we want if we can only get the information. Times may be hard, but a two-cent stamp won't break any of us.

Lou Boggs started the year right by stepping out and getting himself married to Miss Rena James of Atlanta. How far is it from Liberty, S. C., to Atlanta, Ga.? And some of you fellows used to want Wellesley moved over to Back Bay. We don't know what Lou is doing besides getting married, but congratulations are in order.

Dick Schonland has been monopolizing all the space in the Portland society columns, but it is a shame we had to sneak up and clip the items ourselves. However, we got even and we have a large picture of Miss Beatrice Bean in the alumni files. The only way Dick can get this is to send in a statement of when the wedding takes place. In between times Dick is working for the Schonland Brothers Company of Portland, Me. Maybe he is one of the brothers. Who knows?

I ran into Howie Howe down in Connecticut last week and he had a lot of stuff. In fact, he just rescued this installment from default. Howie himself is traveling for the Lunkenheimer Company out of Boston. He covers southern New England. I hope he does not come in contact with Van Gieson (Crane & Co.) or there may be a heated argument outside some prospect's office that won't make a good impression at all.

G. Percival Schumacker, I mean Schutty, the fellow with the best disposition in Course II, is supervising the operation of any of the Worthington Pump Co.'s locomotive feed water

heaters that are working or not working anywhere between Denver and some other city in New Mexico. That sentence is the long of the short.

Russ Russell is a partner in a Buffing Wheel Works factory in Wollaston, Mass. That is all the information at hand.—Sam Reynolds is covering eastern United States for the J. N. LaPointe Company. He is rooming with Howe in the Back Bay and from Howie's own statements, everything you hear about travelling salesmen is true.—Ken Cunningham is located in Rochester with the Eastman Kodak Company. That information is stolen.—Mel First is now helping the business advance of the Paramount Radio Manufacturing Company, Boston.—Johnnie Daesen is designing dumb waiters for the G. T. McLaughlin Company, Fulton Street, Boston. If anybody knows any restaurants needing dumb waiters, refer them to Johnnie. I have his own word for it that he has just finished designing the dumbest waiter that has ever been placed on the market.—Tom Quirk can be found in the Boylston Street office of the Boston Edison Co. He is with the Street Engineering Department, whatever that means.—Frank Connors is now with the American Radiator Company in Buffalo. But the real bit of news is that he is still single.—Walter Kirley is still with the Underwriters Bureau but has been shifted from Hartford to Boston and is living at home.—Art Wasserman has forsaken the General Electric Co., and is building a million-dollar high school in Bridgeport, Conn. His address is 7 Sedan Terrace.

On reading over these notes, I think that their vagueness is quite noticeable. The reason is that practically all of them are gathered from what some other fellow heard from a classmate that had been talking with the original man in question. What I want and you want is addresses and employers' names and they are usually hard to remember correctly. The only solution is to write your own data in and give the other boys a chance to look you up whenever they happen your way.

Course VI

FEARING PRATT, *Secretary*, 120 Main St., Hingham, Mass.

This issue is dedicated to Don Knight who has sent in the following:

"My last throw came from Lynn where I was on the test course with the General Electric Company. I had expected to be there for a year and a half on test, but I was wrong. Dame Fortune came along, knocked at the door and believe me the latchkey was out and set.

"I transferred most of my worldly goods about the middle of April to that much heard of city of . . . Schenectady. I am at present, and have ever since my arrival, been located in the Railway Motor Engineering Department. It sure is a fine place to be, with very interesting work, and pleasant co-workers. I am very well satisfied. I could go on telling many things but this is no time for technical stuff. The railway game I feel is getting better all the time and I am glad to be where I am. Where the problems of engineering come in, the rest of the line simply pass the buck to us.

"As you may remember for the last five years most of my traveling has been on my 'noble steed,' and so it has been out here. However, in exploring the foothills of the Adirondacks early in May, I came across a beautiful spot on the shore of Lake Desolation. It came to pass in due time, that I built a little camp there, where many happy hours have been spent in the past seven months. In order to transport my worldly goods, I sold the third wheel and bought a flivver. I never knew my eardrums were sensitive before, but something was wrong. To be sure, 'Liza Jane' oscillated at low frequency but what amplitude! Next I acquired a Dodge the better to conduct my worthy brothers to my abode. Only January 13, Ed Ayres and I were up there and if there is one grand and glorious feeling possible, it's sitting around a fireside with thoughts of old time friends.

"Well, guess I'd better trip my breaker! Perhaps next time I can give some dope on the delinquents. Where are they? Please pass on to all our VI '22 fellows my best wishes for their happiness and success and as in the lobby of old: 'Hello, howthe-hellareyou?'"

While on a flying trip to New York a few days ago, I saw E. L. Norton. Ed is with the Western Electric Company at New York City, and enjoys the work a great deal. He sends his best regards to all the gang and is ready to receive any letters that may find their way to 75 Ashland Avenue, East Orange, New Jersey.

Courses VIII and IX

THOMAS H. GILL, *Secretary*, 520 East State St., Trenton, N. J.

The first one of the loyal Eight and Niners to recite will be one Paul Winsor, Jr. Paul has remained dormant since gradu-

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1922 Continued

ation, but his two-page letter was one of those worth-while-waiting-for affairs. On last October 4, Miss Marion Joyce claimed him as her husband and now he is performing the daily commuting stunt from Weston to Boston, where he is employed by the New England Telephone & Telegraph Company as a testing and maintenance expert. He reports John W. Poole, III, as back at the 'State working for a Master's Degree in Chemical Engineering. Also that several of the Runkel Tower crowd as hitched among whom are Hank Miner, '22, II, to Miss Rita Littlefield and Bill P. Foster, '22, II, to Miss Irene Franklin.

H. Seymour Coulton reports from Sweetwater, Tennessee, where he has charge of the testing laboratory of the Durex Chemical Corporation. Babe took the big step last fall and claimed one of the fair sex from Philadelphia.

Billy Huger was married on January 29 to a Miss Sarah Orme of Atlanta, Ga., and is living at 34 Meeting Street, Charleston, S. C. Rollin Baldwin is still at Yale, pursuing graduate work, and assisting in the Department of Physics. He reports Miss E. L. Mores, R. B. Jones, Bailey Townsend and R. B. Lindsay as doing likewise at New Haven.

Dave Harris expressed a voluminous note from Rochester. Dave sure does keep a line on the gang and reports Archimedes Kendrick as having forsaken the American Telephone and Telegraph for the 'State, where he is back laboring for the Ph.D.; that E. C. Jewett and Hal Golding as tripping about the Park looking over brine mains (Jewett left the ranks of the single and free' last fall); that aside from the deep embarrassment suffered when he dropped the music from the piano during a recent impromptu recital of the local Tech club quartet before the Rochester Engineering Society; that Clyde Brockett is gradually falling into the net of the more subtle sex; that Les Lewis reminded Bill Edwards recently of the verbal contract that a certain group of Eighters took upon graduation; [watch out, Bill! It means forty dollars] and last and best that Clayt Grover has distinguished himself already to the fair sex up that way. As one of them put it, "He's the Jazz fellow with the wonderful line."

Only one more issue during the current volume will have space for us, so let's hear from all those Eight and Niners that belong to the few and loyal.

1923

ROBERT E. HENDRIE, Secretary, Room 613, 50 Oliver St., Boston, Mass.

H. L. BOND, Assistant Secretary, Room 1-181, M. I. T., Cambridge, Mass.

Spring is here, and with it come the robins, mud, and the April Review. We are sorry that there seems to be a dearth of notes with which to greet the joyous season, and it behooves us to issue a gentle reminder that there are but two more issues for 1923 notes before The Review starts on its summer vacation. A word to the wise is sufficient.

One of the surest ways to keep in touch with your class is to let the other fellows know about yourself. Get out your pen, pencil, or Corona now and drop a line to your Course or General Secretary.

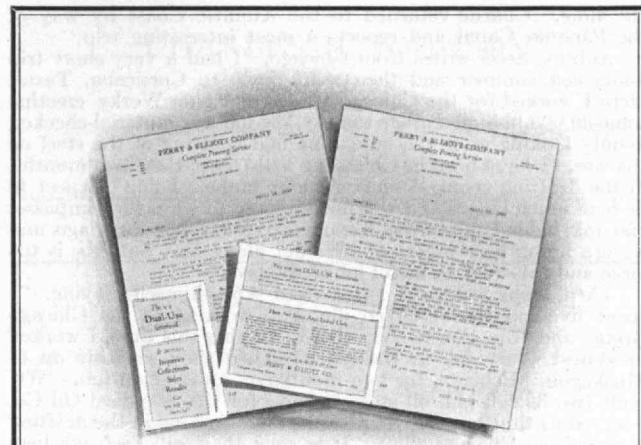
Course I

J. M. ROBBINS, Secretary, 42 Oak St., Belmont, Mass.

The volume of news which has come in since the last issue is most gratifying. There are still, however, a number of men who are keeping exceedingly quiet as to their occupations and locations. Perhaps they have been retained by Mr. Doheny, at a comfortable fee, as consulting engineers and do not wish to be hailed before the Senate Oil Committee. Perhaps they have other reasons for maintaining silence. We do not know. We would, however, like to hear from them.

Neck Gilman reported from Washington early in the year. In regard to himself he says, "My rating has been changed to that of Deck Officer—attached to the Division of Hydrography and Topography—and a bunch of us are now attending a Deck Officer's School, presumably to fill the double purpose of fitting us for our jobs and giving us the information necessary to pass the exams which we will take before we get the Irish promotion shortly due, that is, we get commissioned as Ensigns with less pay than we are getting as non-commissioned Deck Officers. It's all wrong, Steve, it's all wrong." We are rather inclined to agree.

The first of the second term, Charlie Wenz returned to his old haunts in Cambridge. Charlie was in Illinois with the Highway Commission early last summer and then made his way West to the job in Washington, which was mentioned in an earlier issue. On his way out, he ran across Chuck Weiler in Denver. Chuck was with the Worthington Pump people at



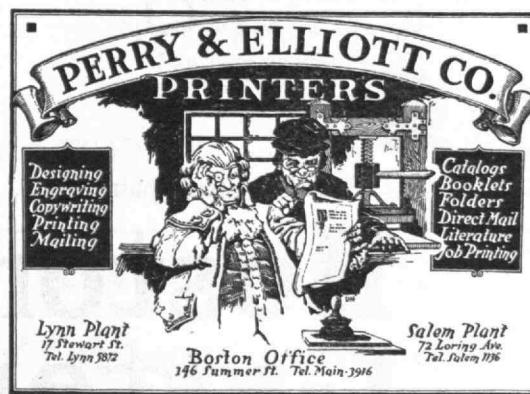
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1923 Continued

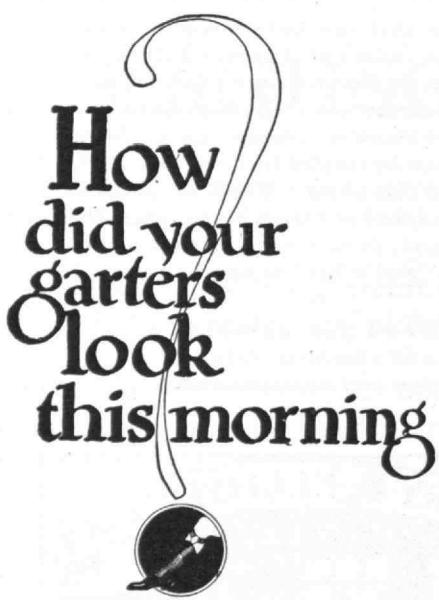
the time. Charlie returned to the Atlantic Coast by way of the Panama Canal and reports a most interesting trip.

Aubrey Seels writes from Chicago, "I had a very short trip home last summer and then went down to Corsicana, Texas. Here I worked for the Chicago Bridge and Iron Works, erecting some 80,000 bbl. oil storage tanks. My job was material checker, mainly looking after the unloading and spotting of the steel on the site. I have been in Chicago a little more than two months, in the drafting room, designing water tanks. I don't expect to be here much longer and will not be sorry to leave the compasses and ink behind me. Abe Kenney arrived a few days ago and we are living here together. We get along fine, but Abe is too large and takes up an awful lot of the bed."

Then along comes a letter from Abe, himself, saying, "I spent five months in Greenville, Pa., working in the Chicago Bridge and Iron Works shop there. During this time, I worked in almost every job in the place. Then they sent me up to Muskegon, Michigan, for two months on an erection job. We built two 80,000 bbl. oil storage tanks for the Standard Oil Co. I served as timekeeper. At present, I am working in the drafting room of the Chicago office. How long they will keep me here I do not know. Seels expects to be sent into the shop most any minute now, probably here in Chicago."

The Boston papers have recently featured the purchase and repair of the Wayside Inn by Henry Ford, but we were unaware that Phil Kershaw was mixed up in it until we received a letter from Phil himself. To quote, "As you know, I hooked up with Lockwood, Greene & Co., and was assigned to the Valuation and Appraising Department. After several months of office work I was sent out into the field. Thus far I have been in Indiana, Kentucky, and South Carolina on different valuation jobs, mostly in the textile line. I also did some surveying for Henry Ford at the Wayside Inn. There, I spent about a month with Howard Thomas of Tech."

Phil enclosed a letter from Ed Pomykala who is with Art Stuckey on the hydro development on the Tuscaloosa River in Alabama. From Ed we learn that the construction camp has been completed and that excavation has begun. Working on the job from the very beginning, Ed finds it increasing in interest as the actual work on the dam begins. It would appear that there was much to be gained from the job in the line of experience and Ed thinks that he will remain there until the work is completed.



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Boston Garter

GEORGE FROST COMPANY, Makers, BOSTON

We hear that Alec Stewart is drafting for the Big Four Railroad in Cincinnati. Knowing Alec's love of drafting in days of yore, we wonder how he likes the job.—Bert McKittrick called up Rice the other day just as he was leaving town for Milwaukee. He is with a consulting engineer there. Details are lacking.—Occasionally we hear indirectly from Bobby Burns, up in Toronto. The bridge on which he is working is progressing in spite of cold weather and Bob finds plenty to keep him busy.—Norm Page is at the 'Stute this term.—Dresel complains of lack of publicity. We stated in an earlier issue that he was an Assistant at the 'Stute. We will supplement this by remarking that he is Chief Cook and Bottle Washer in Johnny Howard's office, that he is still enjoying Eddie Miller's heat lectures, and that he hopes to finish his thesis by June. Further information on request.

Bill LaLonde writes at length from Los Angeles. His family is there now, so that Bill is very well fixed and appears to be thriving. He sends his best to the gang.—Among the distinguished audience at the last Aldred Lecture we ran across our famous Grocery-Engineer, Edwin B. Crowley. Life seems to hold few worries for Ted and he reports that the grocery business provides even better opportunities for sleep than some of his former classes.

Allen Parker expects to leave Seattle for Alaskan waters on the 15th of March with the U. S. S. Explorer. In January he took a fifteen-day leave to make a trip down the coast as far as the Mexican Border, and return, with three other fellows in a Stutz.

Gerry Putnam bumped into Clayton Harvey at the South Station the other day. Clayton is with the Massachusetts Highway Commission at the Commonwealth Pier.

Course VII

EARLE A. GRISWOLD, Secretary, Griswoldville, Mass.

Since the last Review came out, the matrimonial virus has been working overtime and while some members have held out against repeated attacks, the susceptibility index is surprisingly high for such a small group of young people. Further statistics may bear out that this is a general condition. Just what part the one-armed gentlemen, Spaulding and Walton, play in the affair is unknown, but it looks like an open protest against the rare delicacies served at the establishments of the aforementioned.

Phil Riley has cast his vote for home cooking. The St. James Church at Cambridge was the scene of his marriage to Miss Ella Smith on the evening of February 21, 1924. These congratulations and best wishes are a bit late but, nevertheless, sincere.

However, Phil hasn't been without competition and it is understood that the announcement of the engagement of Miss Miriam Hayward Patten to Bernard E. Proctor during the latter part of December caused no small amount of anxiety to Phil in his effort to establish the connubial precedent among the latest edition of Course VII. Congratulations, Bernie, old man, but remember we've got to have news every month or two in order to print The Review.

The rest of Course VII are a bunch of pikers. All six of 'em.

Gerry Fitzgerald writes an interesting letter wherein he suggests that the time is propitious for the beginning of plans for a Course VII One-year Reunion. With the exception of Tom Duffield, who still has his headquarters at Geneva, Switzerland, everyone is sufficiently near to make such a plan practical. He suggests that before we become more widely separated, we get together and make plans for a Five or Ten-year Reunion. By that time, he hopes that our credit would be good enough so that if someone should get as far away as Hoboken, we could pool our resources and get him aboard a day coach for some centrally located point. Gerry suggests New York, New Haven and Springfield as being within easy reach of all. I should say that it has all the earmarks of an idea. Let's have some letters to see what the verdict is. Gerry's address is 400 Chestnut Street, East Lynn, Mass.

Milt Parker is around the 'Stute working in the Research Laboratory on the fourth floor of Building 10. It must seem almost like old times when he, Smoke Fuller, Phil Riley, Al Ellsworth ('21) and Bernie Proctor get together up there. Well, Milt, I'm saving up for a shine this week, but I may get up and call on your gang sometime.

Smoke Fuller is still working with Dr. Clapp on the Toredo investigation. The indications are that such work is accompanied by paralysis of the right arm as I have not heard from Smoke for months. How's the club coming along?

Herman Swett continues his work with the Department of Agriculture in Washington.

Let's hear what the gang thinks of Gerry's proposition, and while writing, current news would be appreciated.

1923 Continued

Course X

RODOLPHUS K. TURNER, Secretary, 61 Brookline St.,
Chestnut Hill, Mass.

Your Course Secretary's letters, after reaching the darkest corners of various labs all over the country, finally succeeded in wresting a little news from the Course X population.

Louis B. Freeman is in New Jersey doing development work for the Standard Oil Company. If the price of gas takes another jump, we will know who is to blame now. Watch your step, Louis!—Erwin Schoeffel is at Massena with the Aluminum Company of America.—Leaping Lugar is with the same company at Pittsburgh. He writes:

"The work I am doing now consists of handling everything that is not cut and dried routine work between the local and

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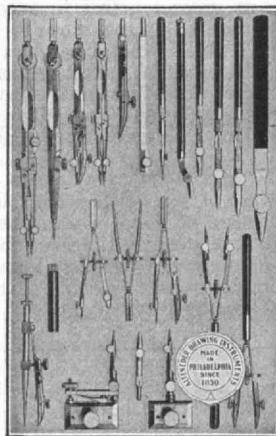
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Positions Vacant

A FIRM of consulting engineers located near Philadelphia and specializing in municipal surveys, such as sewer and paving construction, is in need of several recent graduates in civil or sanitary engineering who have had some practical experience in surveying and supervision of highway and sewer construction. To men who are willing to work for a moderate salary until they gain sufficient practical knowledge to be of real worth, a future of great possibilities is open. Address TECHNOLOGY REVIEW, D 3070.

A LARGE firm manufacturing chemicals and dyes is desirous of securing one or two chemical research men with from five to ten years' experience who would be capable of acting chiefly in an executive capacity. One position is in charge of pure laboratory research and another in supervising research on a semi-plant scale. Applicants should give experience in detail and references. Address TECHNOLOGY REVIEW, D 3073.

AN exceptional opportunity to connect with a permanent position is offered by a very large manufacturer operating factories in various parts of this country and in Canada. The type of man wanted should be from ten to fifteen years out of the Institute and should have a rather general knowledge of the problems arising in the manufacture of bar iron; malleable, steel, iron, and brass castings; steel wire, and chain. His experience and personality should enable him to work without friction towards the solution of technical problems where it will be necessary to gather all the available information from the various department heads and other outside sources. Consulting engineering experience is desirable insofar as it gives a proper mental background and attitude towards tackling unexpected problems. Salary arrangements can, it is believed, be made satisfactory for a capable man. Address TECHNOLOGY REVIEW, D 3074.

ONE of the largest chemical manufacturing companies in this country has need of several chemical engineers with from five to ten years' experience in plant operation. Success in handling labor and equipment in industrial plants, not necessarily chemical, is an important qualification and for such men there are excellent prospects. Address TECHNOLOGY REVIEW, D 3072.

RECENT graduates who are interested in industrial engineering are wanted by a large company operating several plants, to work on the installation of planning departments in these plants. Acquaintance with piece work and time study methods is desirable but not necessary, providing the man is of the proper calibre. Address TECHNOLOGY REVIEW, D 3075.

YOUNG civil or mechanical engineer is wanted as an estimator and draftsman on general construction plans by a firm of contractors and builders in a New England city. Applicant must furnish references, experience, age, and salary expected. Preference will be given to one who has some knowledge of French. Address TECHNOLOGY REVIEW, D 3071.

YOUNG electrical engineer wanted by a large public utility electric company to engage in underground cable research and in the solution of central station problems concerning transmission and distribution of power. Candidate should have sound electrical training and be above average in physics and mathematics. General information regarding age, weight, height, education, professional experience, marital condition, should be enclosed with references and photograph. Address TECHNOLOGY REVIEW, D 3076.

Positions Wanted

AHIGH-CLASS chemist with long experience as chief chemist with companies manufacturing soaps, fertilizers, glues, vegetable oils, paper, glycerine, etc., is available for a position in the Middle West or on the Pacific Coast. If you have need for a high-grade and conscientious chemist whose technical equipment is exceptionally broad and thorough, you can, by answering this ad, get in touch with such a man. Address TECHNOLOGY REVIEW, D 4014.

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ELECTRICAL engineer with a record of broad experience in power plant and industrial electrical work, in both construction and operation, is available for a permanent connection. Is willing to go to any part of the world under proper conditions. Can speak Portuguese and has some acquaintance with French and Spanish. A firm having need of a man who can put his best efforts into energetic and comprehensive development, reconstruction or expansion of an industrial electrical plant will do well to write to TECHNOLOGY REVIEW, D 4010.

GRADUATE with over twenty years' experience, mostly in sales engineering and management, is open for a connection with a small, sound concern in a sales executive capacity. Product should be mechanical in nature. Can invest capital if desired and can furnish upon request a complete record showing continuous results. Salary desired from six to seven thousand dollars, depending upon future prospects. Address TECHNOLOGY REVIEW, D 4015.

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Jack Keck is with Westinghouse at Bloomfield, N. J.—Abraham Cohen is with the Arsenamine Laboratory of the Food and Drugs Division of the Massachusetts Department of Public Health.

Charlie Schnell is another development expert and is helping out the Stechman Products Co. of South Braintree, Mass.—Hal Cotter sent in a nice long letter but, as usual, didn't say a word fit to print, so we will only say that he seems to be well.

Come on, you Chemical Engineers, let those test tubes alone long enough to drop me a line about yourself and any other Course X-ers you know about.

1923 Continued

district sales office and factories. Of course, I only assist in doing this, as I have two bosses."

Bert Landry is with the Bureau of Mines at Midwest, Wyo. He writes as follows: "I spent a very short time in Washington, last July, as I was nearly immediately detailed to field service. I spent the summer in Bartlesville, Okla., at the Bureau of Mines' Petroleum Research Station there.

"I was then sent here to the Salt Creek Field. Most of the oil produced in Salt Creek (120,000 bbls. daily) comes from Government land, under the direct supervision of the Bureau of Mines.

"I am doing all kinds of odds and ends, but presently I am mostly occupied with problems accompanying the recovery of casing-head gasoline from natural gas. And strange to say, besides our course in Chemical Engineering, M41 and 246-247 are helping me a whole lot. I am the sole chemical engineer in the employ of the Bureau in the Field."



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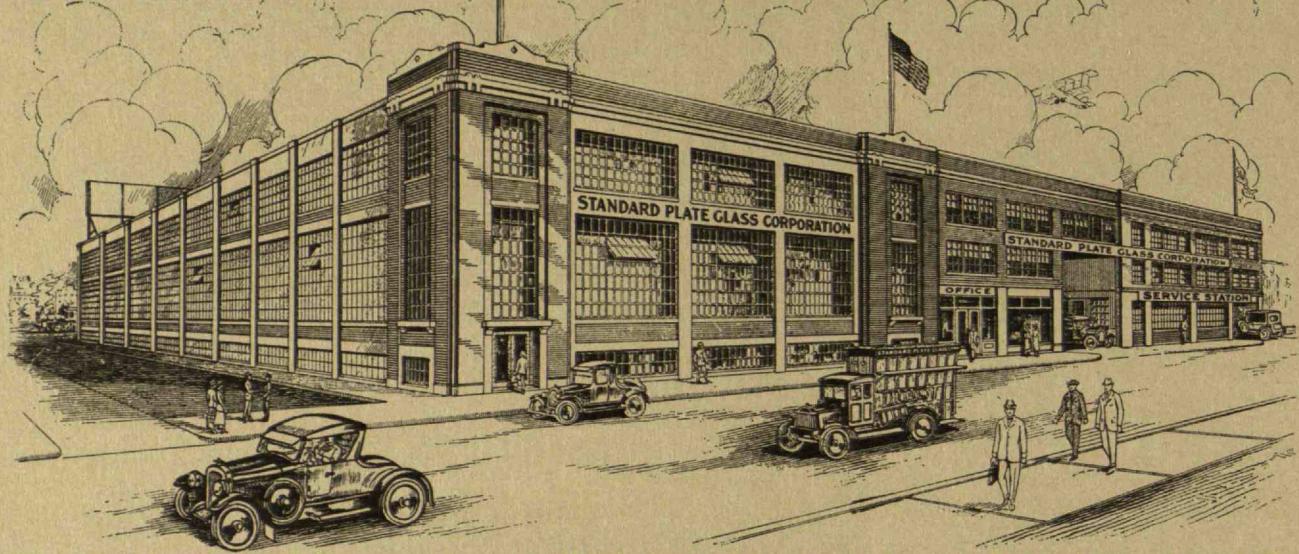
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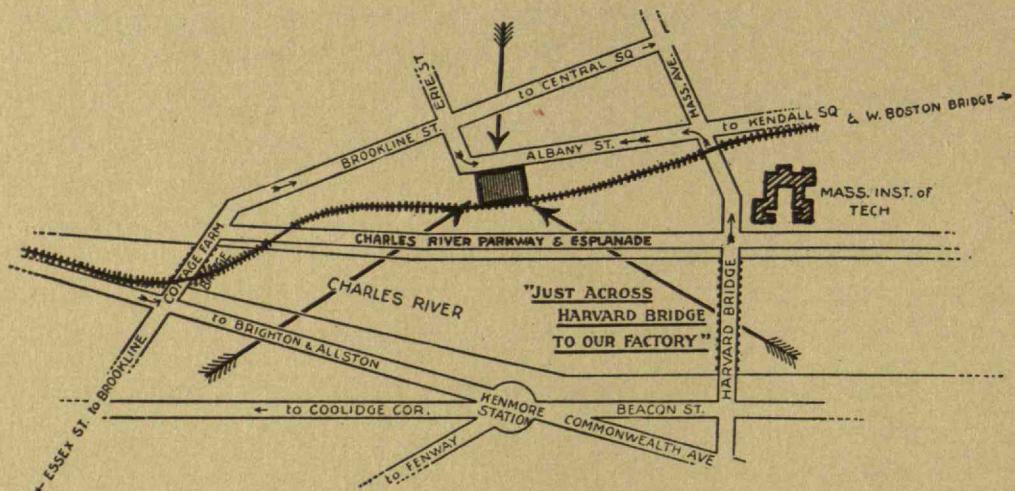


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